

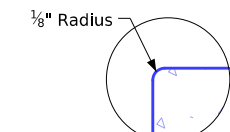
Index of BT Stub Bridge Standards

Standard	Description
100-BTS	Index Of BT Stub Standards
2092-BTCD	"BTC" or "BTD" Beams - Stub Abutment Details - 0° Skew
2092-BTE	"BTE" Beams - Stub Abutment Details - 0° Skew
2093-BTCD	"BTC" or "BTD" Beams - Stub Abutment Details - (R.A.) 0°01'-7°30' Skew
2093-BTE	"BTE" Beams - Stub Abutment Details - (R.A.) 0°01'-7°30' Skew
2094-BTCD	"BTC" or "BTD" Beams - Stub Abutment Details - (R.A.) 7°31'-15° Skew
2094-BTE	"BTE" Beams - Stub Abutment Details - (R.A.) 7°31'-15° Skew
2095-BTCD	"BTC" or "BTD" Beams - Stub Abutment Details - (R.A.) 15°01'-30° Skew
2095-BTE	"BTE" Beams - Stub Abutment Details - (R.A.) 15°01'-30° Skew
2096-BTCD	"BTC" or "BTD" Beams - Stub Abutment Details - (L.A.) 0°01'-7°30' Skew
2096-BTE	"BTE" Beams - Stub Abutment Details - (L.A.) 0°01'-7°30' Skew
2097-BTCD	"BTC" or "BTD" Beams - Stub Abutment Details - (L.A.) 7°31'-15° Skew
2097-BTE	"BTE" Beams - Stub Abutment Details - (L.A.) 7°31'-15° Skew
2098-BTCD	"BTC" or "BTD" Beams - Stub Abutment Details - (L.A.) 15°01'-30° Skew
2098-BTE	"BTE" Beams - Stub Abutment Details - (L.A.) 15°01'-30° Skew
2099-BTCD	"BTC" or "BTD" Beams - Stub Abutment Details - 0° Skew
2099-BTE	"BTE" Beams - Stub Abutment Details - 0° Skew
2100-BTCD	"BTC" or "BTD" Beams - Stub Abutment Details - (R.A.) 0°01'-7°30' Skew
2100-BTE	"BTE" Beams - Stub Abutment Details - (R.A.) 0°01'-7°30' Skew
2101-BTCD	"BTC" or "BTD" Beams - Stub Abutment Details - (R.A.) 7°31'-15° Skew
2101-BTE	"BTE" Beams - Stub Abutment Details - (R.A.) 7°31'-15° Skew
2102-BTCD	"BTC" or "BTD" Beams - Stub Abutment Details - (R.A.) 15°01'-30° Skew
2102-BTE	"BTE" Beams - Stub Abutment Details - (R.A.) 15°01'-30° Skew
2103-BTCD	"BTC" or "BTD" Beams - Stub Abutment Details - (L.A.) 0°01'-7°30' Skew
2103-BTE	"BTE" Beams - Stub Abutment Details - (L.A.) 0°01'-7°30' Skew
2104-BTCD	"BTC" or "BTD" Beams - Stub Abutment Details - (L.A.) 7°31'-15° Skew
2104-BTE	"BTE" Beams - Stub Abutment Details - (L.A.) 7°31'-15° Skew
2105-BTCD	"BTC" or "BTD" Beams - Stub Abutment Details - (L.A.) 15°01'-30° Skew
2105-BTE	"BTE" Beams - Stub Abutment Details - (L.A.) 15°01'-30° Skew
2106-BTCD	"BTC" or "BTD" Beams - Stub Abutment Bar List 0° Skew
2106-BTE	"BTE" Beams - Stub Abutment Bar List 0° Skew
2107-BTCD	"BTC" or "BTD" Beams - Stub Abutment Bar List 0°01'-7°30' Skew
2107-BTE	"BTE" Beams - Stub Abutment Bar List 0°01'-7°30' Skew
2108-BTCD	"BTC" or "BTD" Beams - Stub Abutment Bar List 7°31'-15° Skew
2108-BTE	"BTE" Beams - Stub Abutment Bar List 7°31'-15° Skew
2109-BTCD	"BTC" or "BTD" Beams - Stub Abutment Bar List 15°01'-30° Skew
2109-BTE	"BTE" Beams - Stub Abutment Bar List 15°01'-30° Skew
4542-BTCDE	Part Plan & Longit. Sect. - "BTC", "BTD", & "BTE" Beams, Stub Abut., 0° Skew
4543-BTCDE	Part Plan & Longit. Sect. - "BTC", "BTD", & "BTE" Beams, Stub Abut. (L.A.) 0°01' - 7°30' Skew
4544-BTCDE	Part Plan & Longit. Sect. - "BTC", "BTD", & "BTE" Beams, Stub Abut. (L.A.) 7°31' - 15° Skew
4545-BTCDE	Part Plan & Longit. Sect. - "BTC", "BTD", & "BTE" Beams, Stub Abut. (L.A.) 15°01' - 30° Skew
4546-BTCDE	Part Plan & Longit. Sect. - "BTC", "BTD", & "BTE" Beams, Stub Abut. (R.A.) 0°01' - 7°30' Skew
4547-BTCDE	Part Plan & Longit. Sect. - "BTC", "BTD", & "BTE" Beams, Stub Abut. (R.A.) 7°31' - 15° Skew
4548-BTCDE	Part Plan & Longit. Sect. - "BTC", "BTD", & "BTE" Beams, Stub Abut. (R.A.) 15°01' - 30° Skew
4549-BTCDE	Stub Abut. "BTC, BTD, & BTE" Beams, Bar List & Super. Details - 0° Skew
4550-BTCDE	Stub Abut. "BTC, BTD, & BTE" Beams, Bar List & Super. Details - 0°01' - 7°30' Skew
4551-BTCDE	Stub Abut. "BTC, BTD, & BTE" Beams, Bar List & Super. Details - 7°31' - 15° Skew
4552-BTCDE	Stub Abut. "BTC, BTD, & BTE" Beams, Bar List & Super. Details - 15°01' - 30° Skew
4556-BTC-4	30' Rdw. PPCB ("BTC" 4 Beams - Stub Abut.) Cross Section
4556-BTD-4	30' Rdw. PPCB ("BTC" 4 Beams - Stub Abut.) Cross Section
4556-BTE-4	30' Rdw. PPCB ("BTC" 4 Beams - Stub Abut.) Cross Section
4556-BTE-5	30' Rdw. PPCB ("BTE" 5 Beams - Stub Abut.) Cross Section

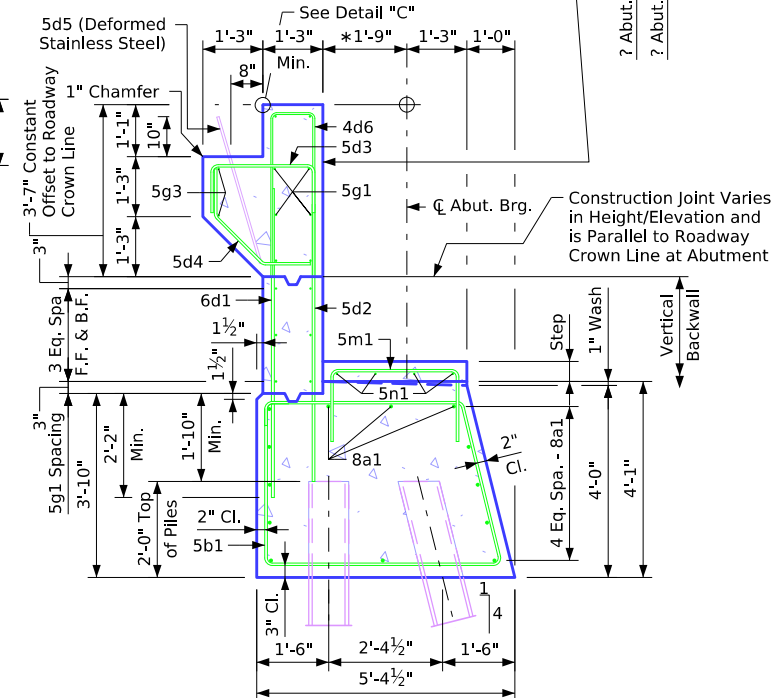
Index of BT Stub Bridge Standards

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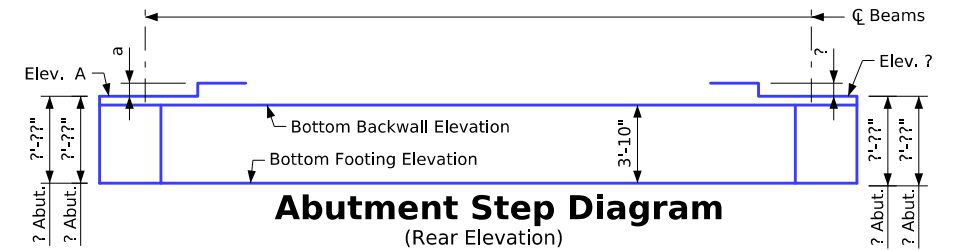
Index of BT Stub Bridge Standards



***This Dimension May Vary. Tilting of the Pavement Support Section During Construction May be Necessary to Accommodate Proper Setting of the Strip Seal Expansion Device Opening.**



Expansion Device not Shown



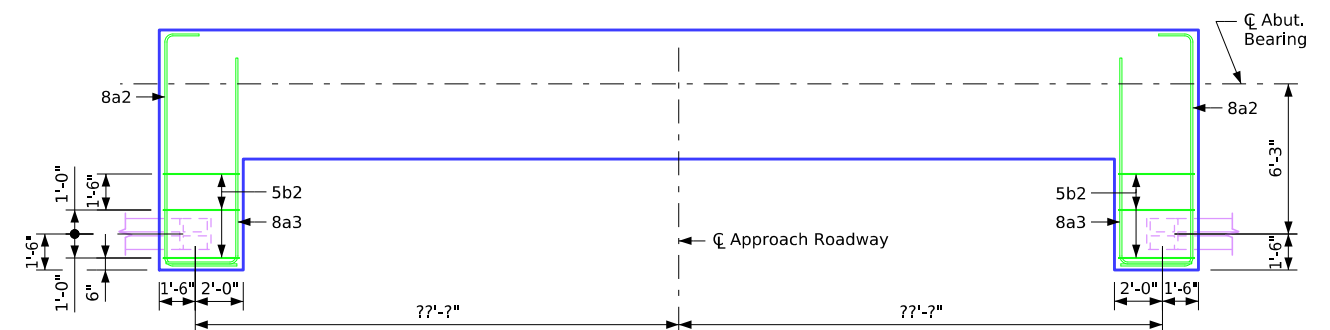
Abutment Step Diagram (Rear Elevation)

Table of Abutment Elevations		
Point	? Abutment	? Abutment
Elev. A	???.??	???.??
Bottom Backwall Elev.	???.??	???.??
Bottom Footing Elev.	???.??	???.??

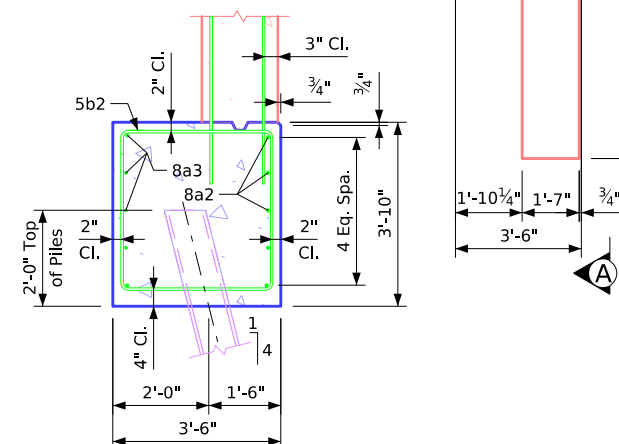
Step	? Abutment	? Abutment
a	???.??	???.??



Part Plan View



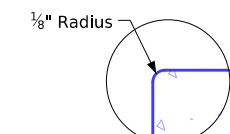
Piling Layout



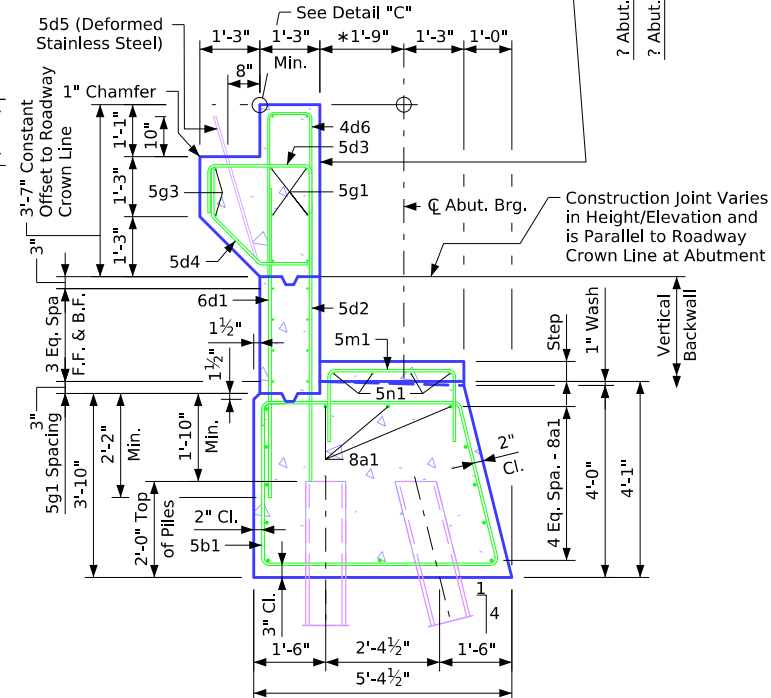
Section E-E

Notes: Dimensions shown on Piling Layout are at bottom of footing. Batter piles in the direction shown.
 ?? - HP 10x42 steel bearing piling required at each abutment.
 Barrier Rail not shown in details.

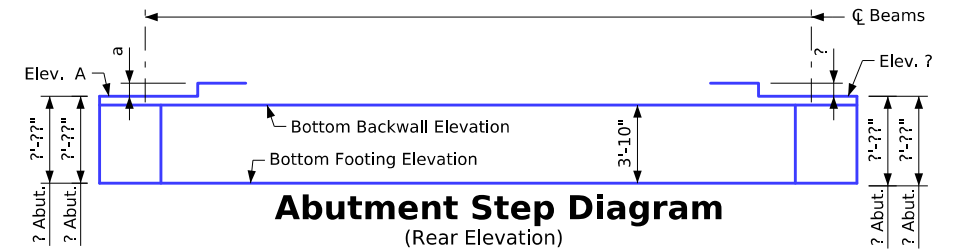
Abutment Footing Details



***This Dimension May Vary. Tilting of the Pavement Support Section During Construction May be Necessary to Accommodate Proper Setting of the Strip Seal Expansion Device Opening.**



Expansion Device not Shown

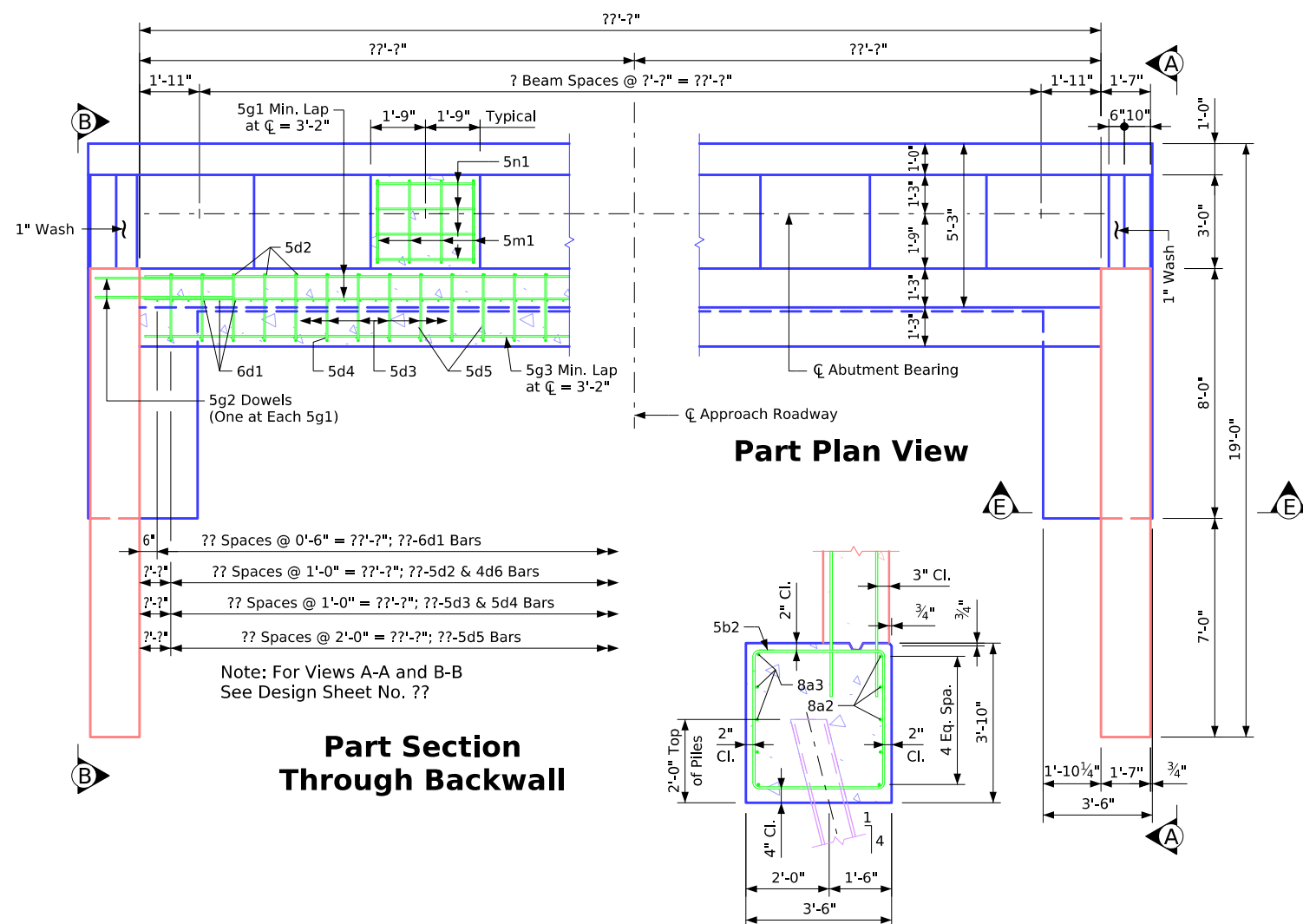


Abutment Step Diagram (Rear Elevation)

Table of Abutment Elevations		
Point	? Abutment	? Abutment
Elev. A	???.??	???.??
Bottom Backwall Elev.	???.??	???.??
Bottom Footing Elev.	???.??	???.??

Table of Abutment Steps		
Step	? Abutment	? Abutment
a	???.??	???.??

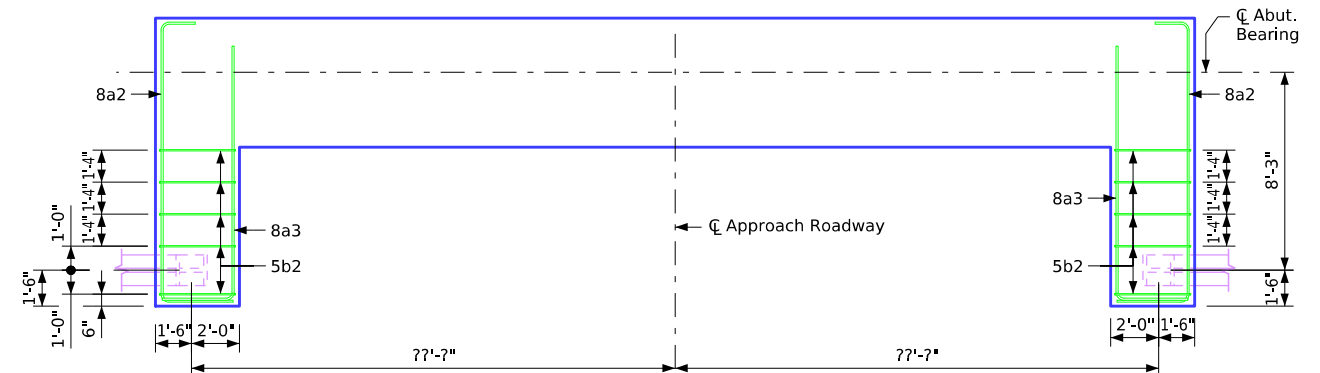
Rear Elevation



Part Plan View

Part Section Through Backwall

Section E-E

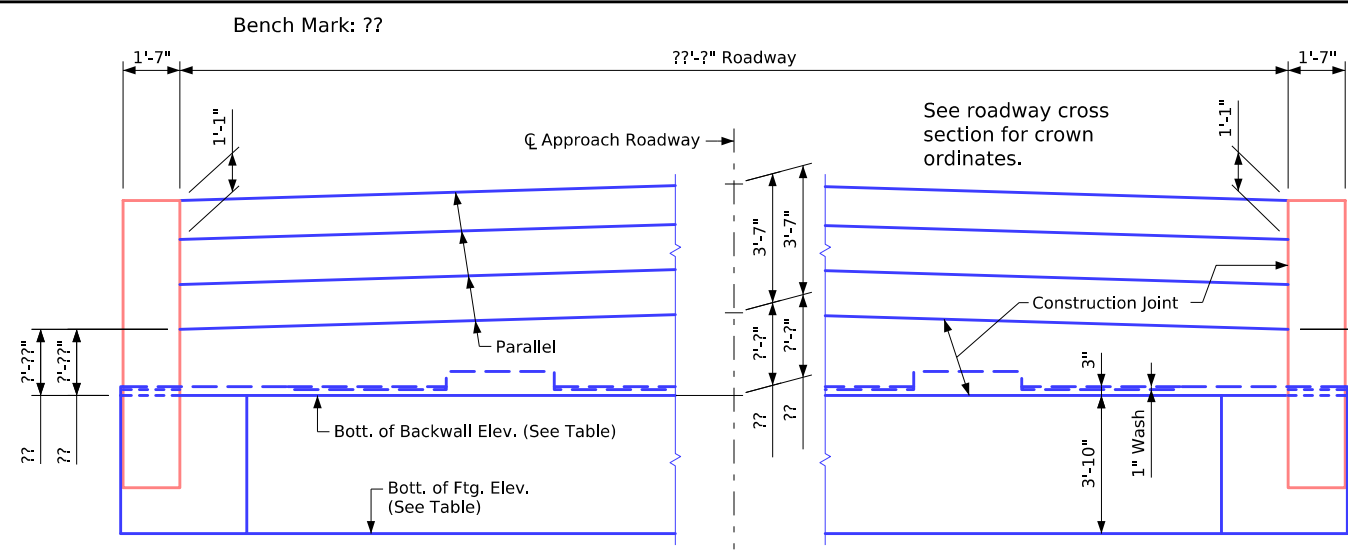


Piling Layout

Notes: Dimensions shown on Piling Layout are at bottom of footing. Batter piles in the direction shown.
 ?? - HP 10x42 steel bearing piling required at each abutment.
 Barrier Rail not shown in details.

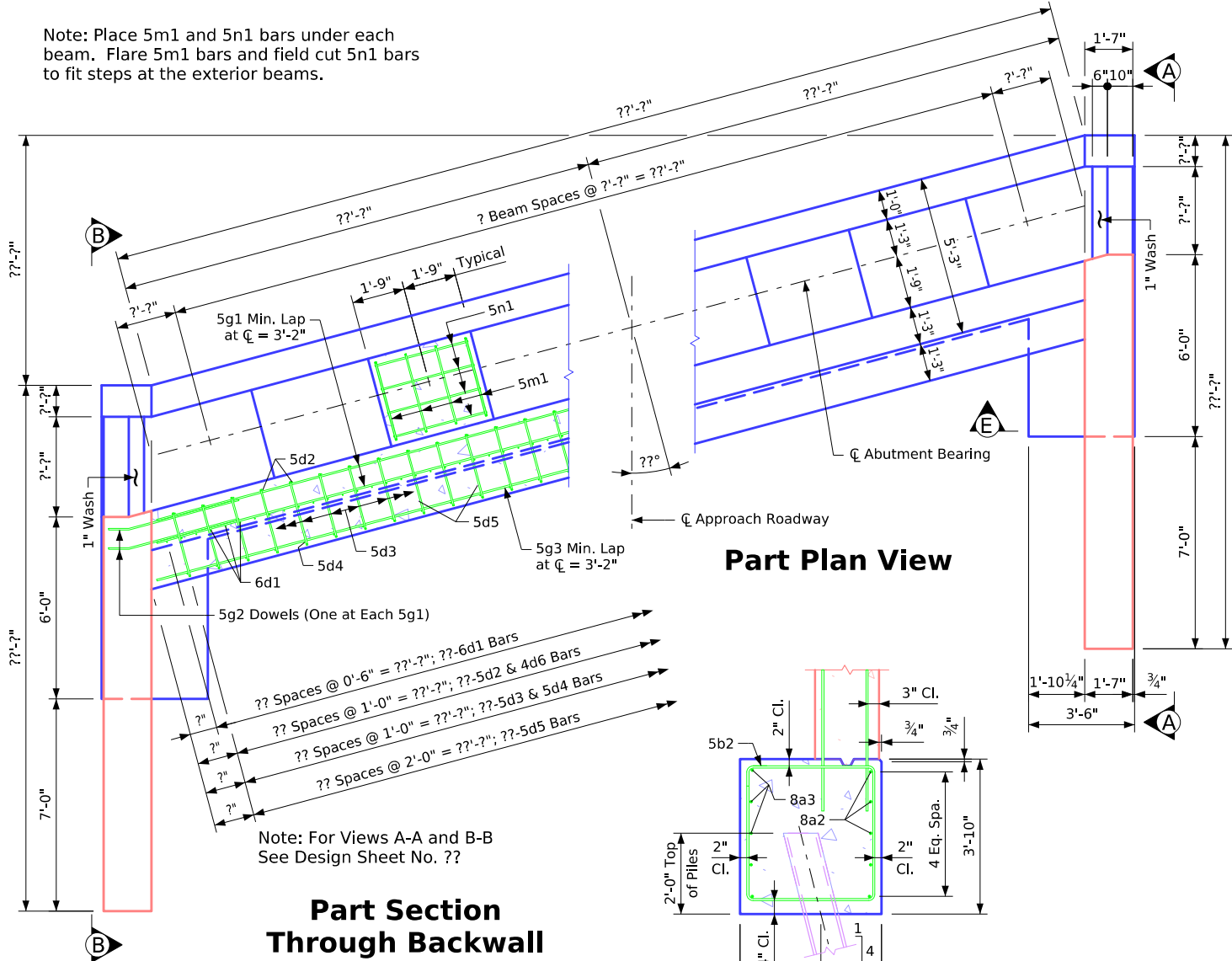
Abutment Footing Details

Revised 10-2026: In Abutment Step Diagram, corrected vertical dimension and placement, (was showing 3'-6").
BTSubBridges.dgn - 2094-BTCD - Issued 07-08, This Sheet Re-Issued 11-2023, Sheet Format Update.



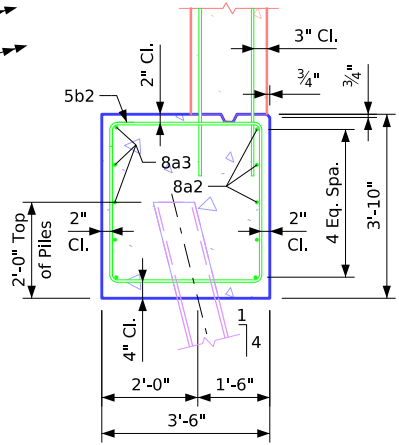
Rear Elevation

Note: Place 5m1 and 5n1 bars under each beam. Flare 5m1 bars and field cut 5n1 bars to fit steps at the exterior beams.

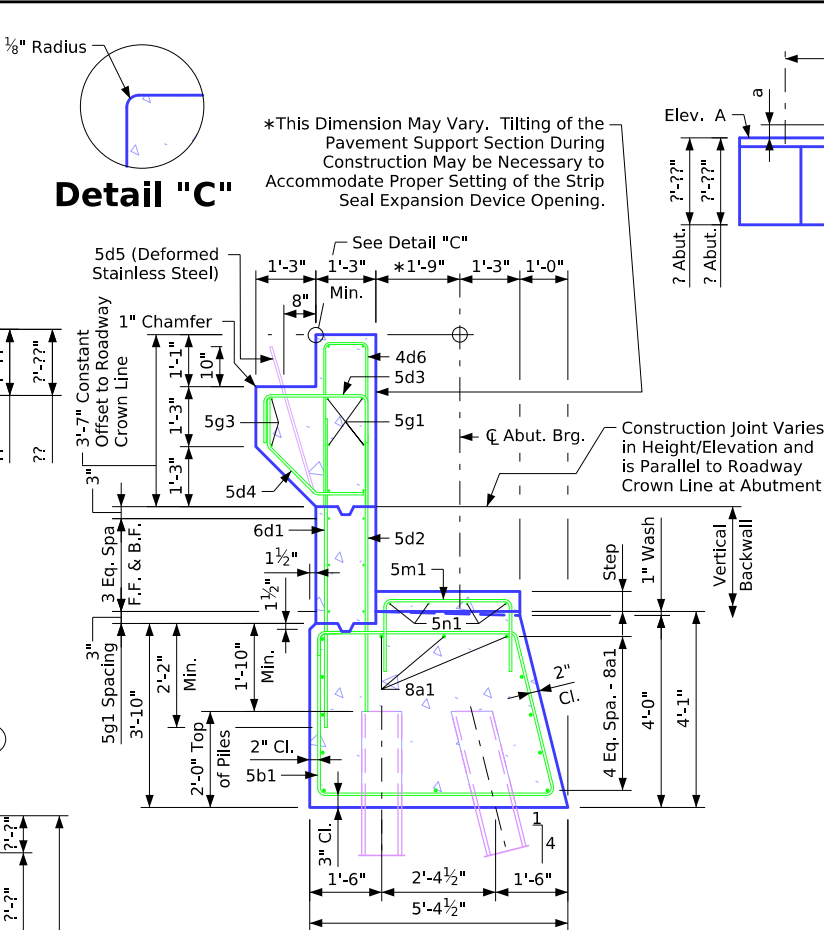


Part Plan View

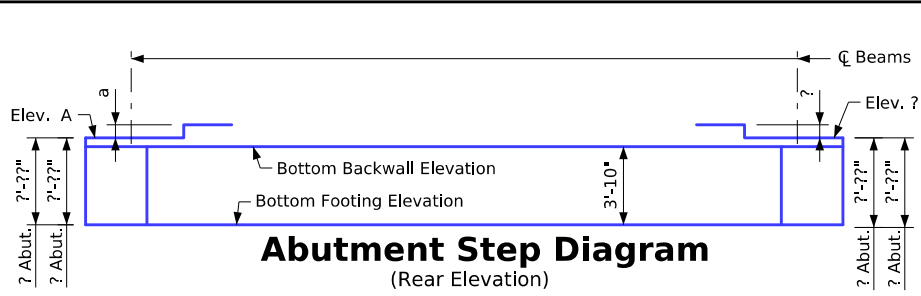
Part Section Through Backwall



Section E-E



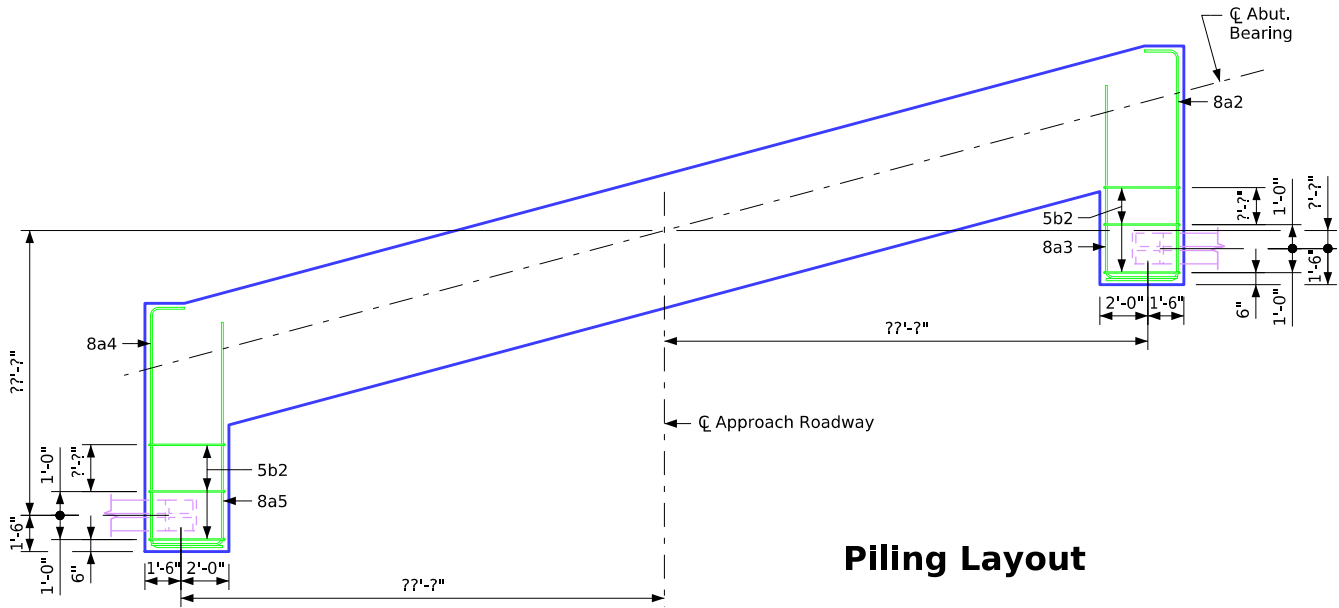
Section Through Abutment
Expansion Device not Shown



Abutment Step Diagram
(Rear Elevation)

Table of Abutment Elevations		
Point	? Abutment	? Abutment
Elev. A	???.??	???.??
Bottom Backwall Elev.	???.??	???.??
Bottom Footing Elev.	???.??	???.??

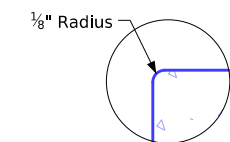
Table of Abutment Steps		
Step	? Abutment	? Abutment
a	???.??	???.??



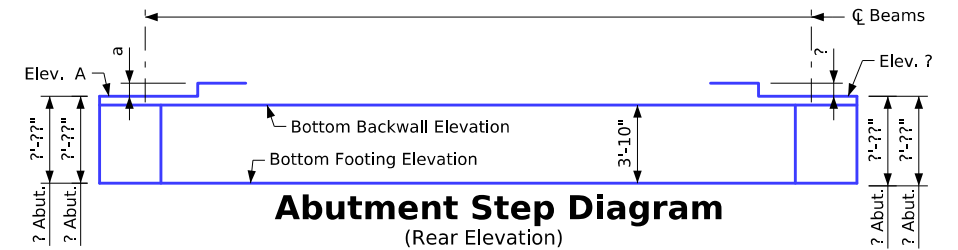
Piling Layout

Notes: Dimensions shown on Piling Layout are at bottom of footing. Batter piles in the direction shown.
?? - HP 10x42 steel bearing piling required at each abutment.
Barrier Rail not shown in details.

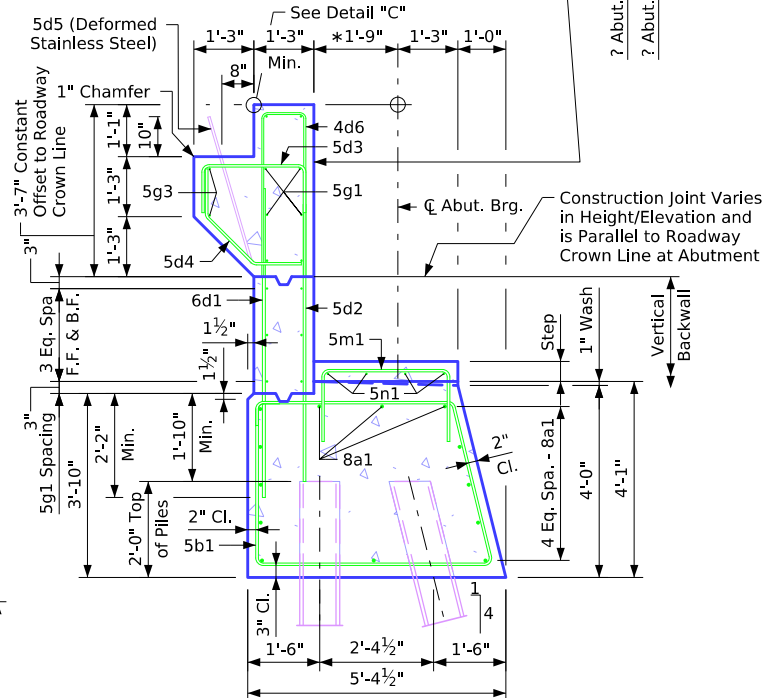
Abutment Footing Details



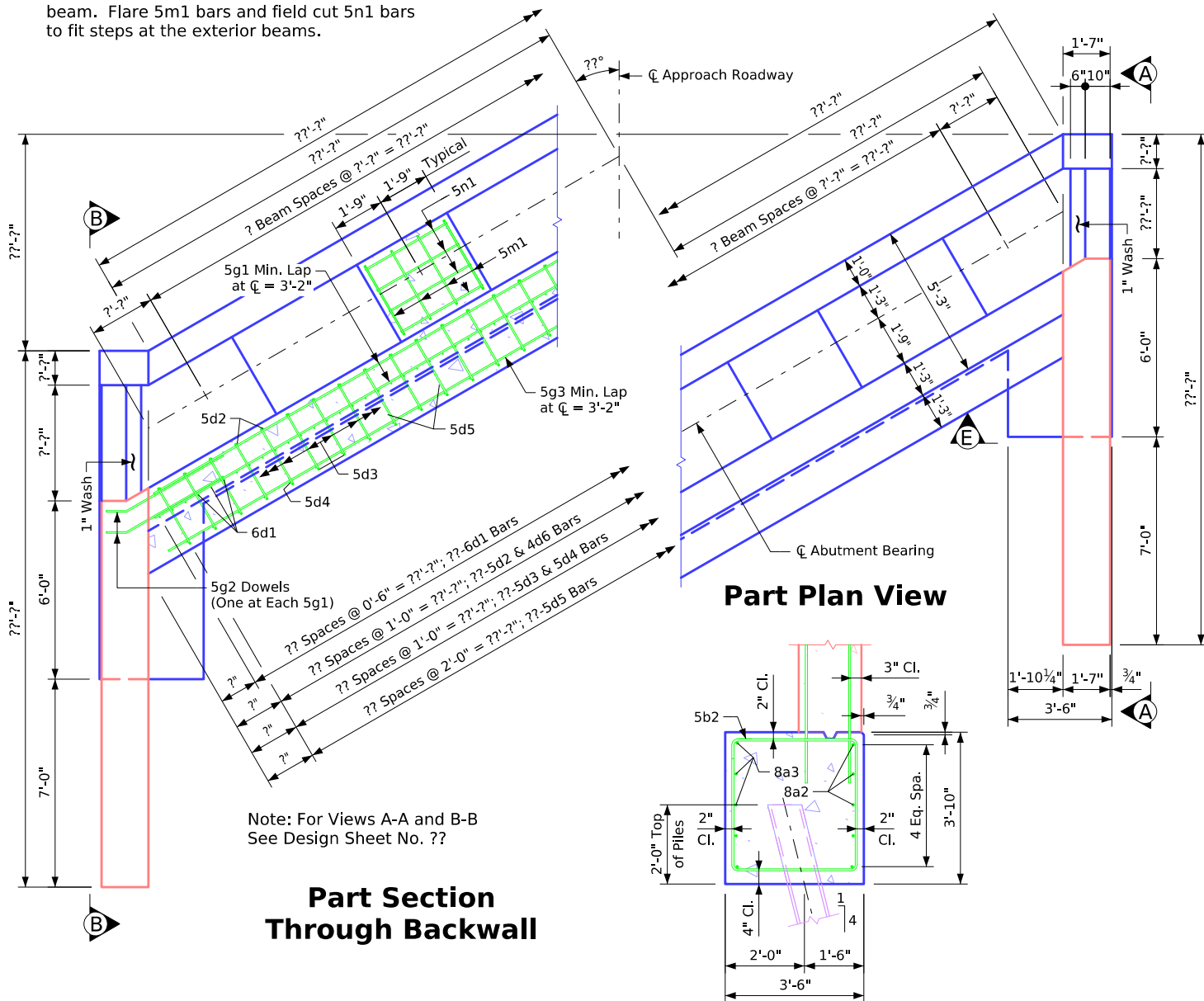
*This Dimension May Vary. Tilting of the Pavement Support Section During Construction May be Necessary to Accommodate Proper Setting of the Strip Seal Expansion Device Opening.



Abutment Step Diagram (Rear Elevation)



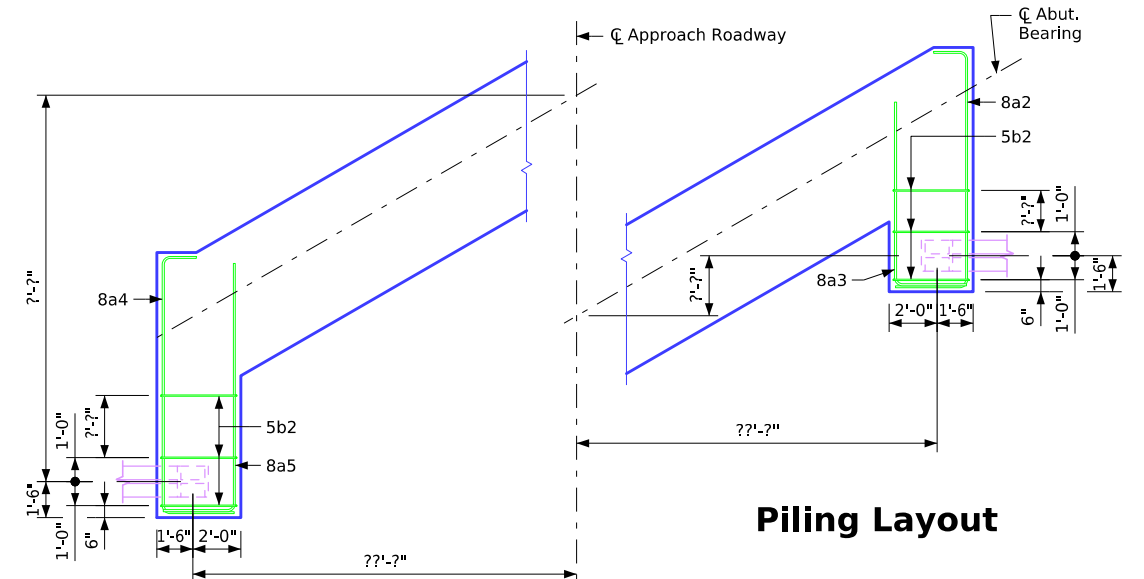
Section Through Abutment

[illegible]

Part Section Through Backwall

Part Plan View

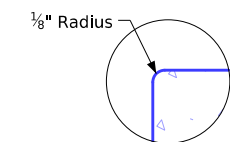
Section E-E



Piling Layout

Abutment Footing Details

Notes: Dimensions shown on Piling Layout are at bottom of footing. Batter piles in the direction shown.
 ?? - HP 10x42 steel bearing piling required at each abutment.
 Barrier Rail not shown in details.



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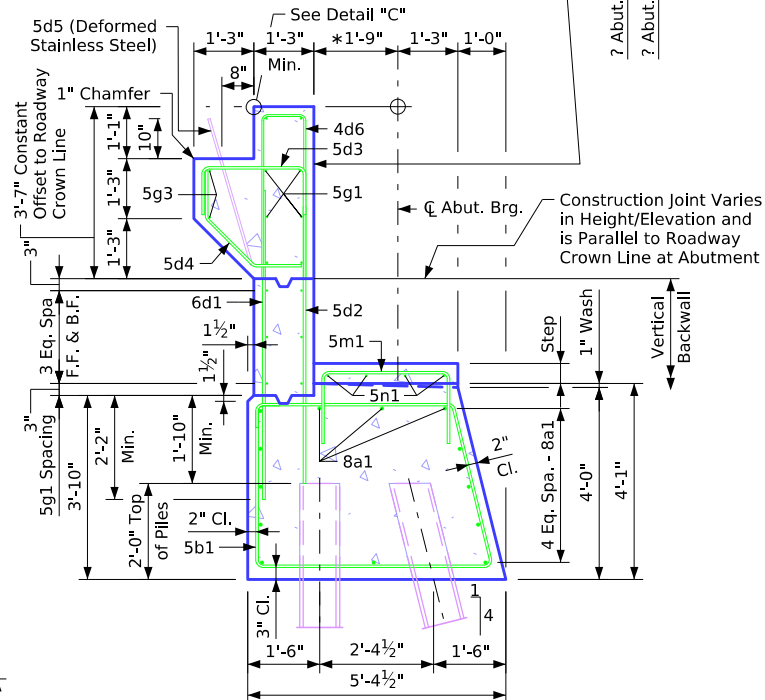


Note: Place 5m1 and 5n1 bars under each beam. Flare 5m1 bars and field cut 5n1 bars to fit steps at the exterior beams.

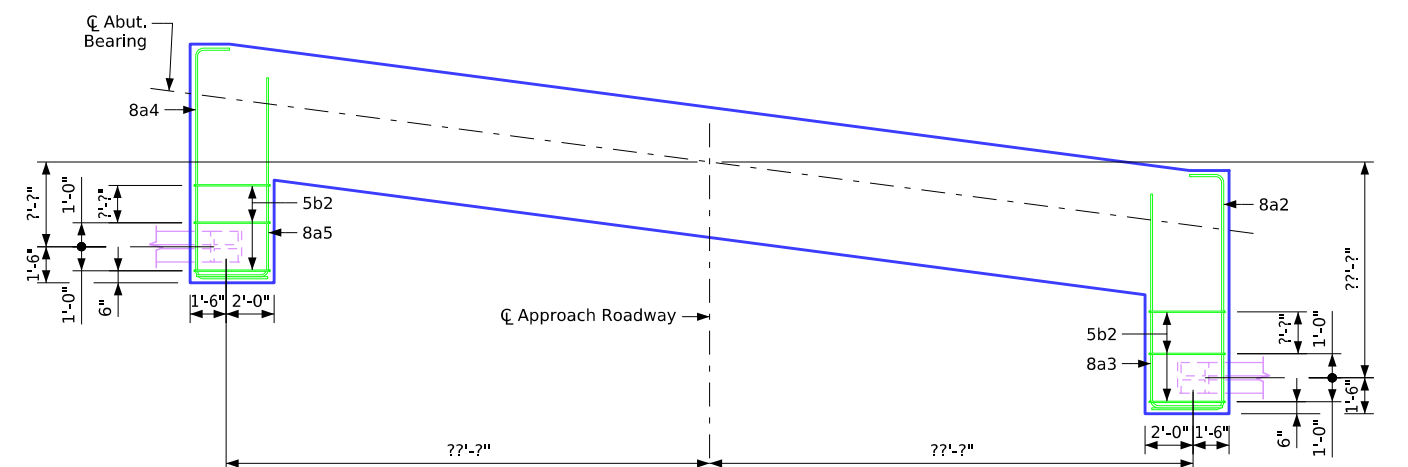


Part Section Through Backwall

Note: For Views A-A and B-B
See Design Sheet No. ??



Section Through Abutment

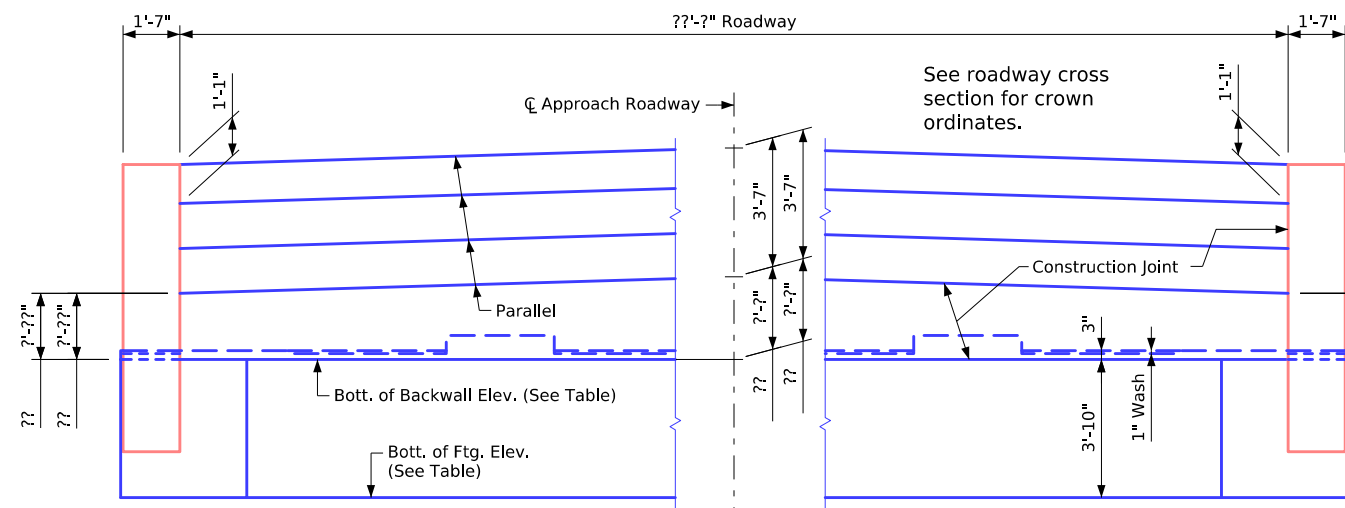


Piling Layout

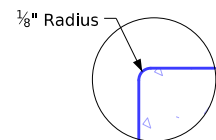
Notes: Dimensions shown on Piling Layout are at bottom of footing. Batter piles in the direction shown.
 ?? - HP 10x42 steel bearing piling required at each abutment.
 Barrier Rail not shown in details.

Abutment Footing Details

Bench Mark: ??

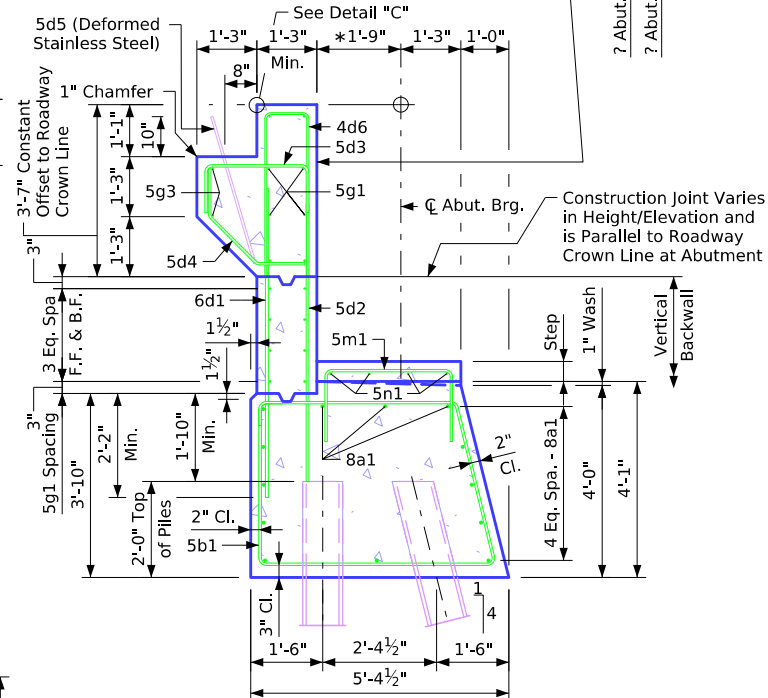


Rear Elevation



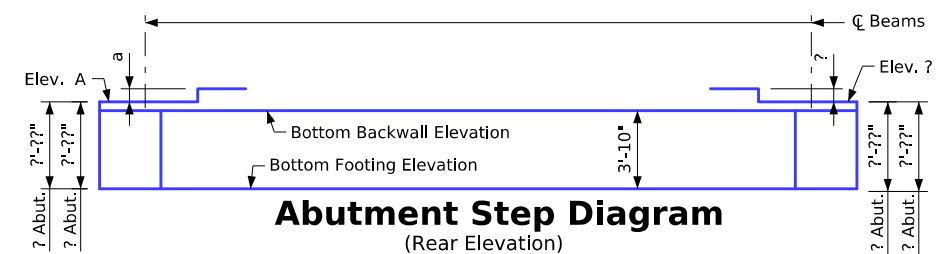
Detail "C"

*This Dimension May Vary. Tilting of the Pavement Support Section During Construction May be Necessary to Accommodate Proper Setting of the Strip Seal Expansion Device Opening.



Section Through Abutment

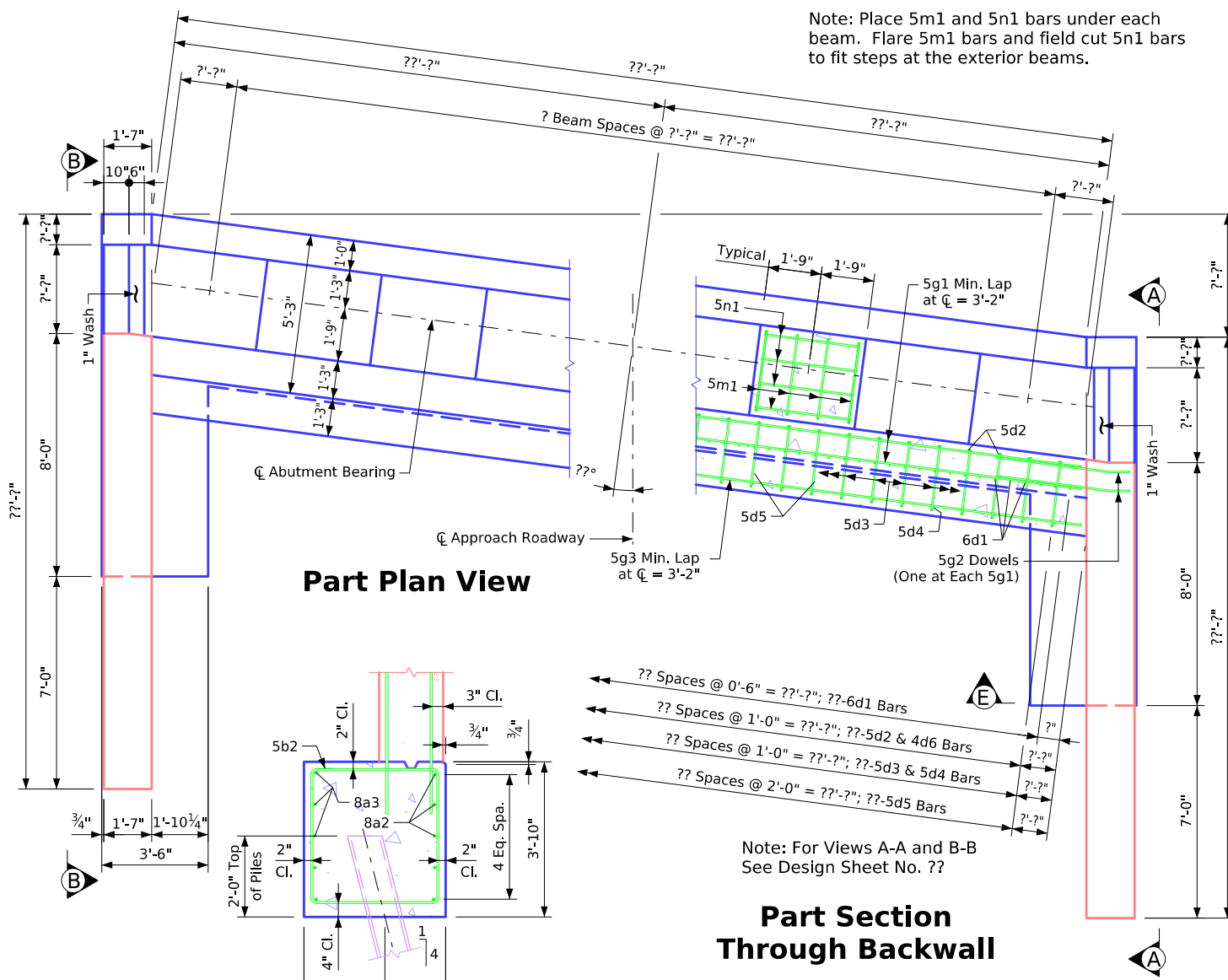
Expansion Device not Shown



Abutment Step Diagram (Rear Elevation)

Table of Abutment Elevations		
Point	? Abutment	? Abutment
Elev. A	???.??	???.??
Bottom Backwall Elev.	???.??	???.??
Bottom Footing Elev.	???.??	???.??

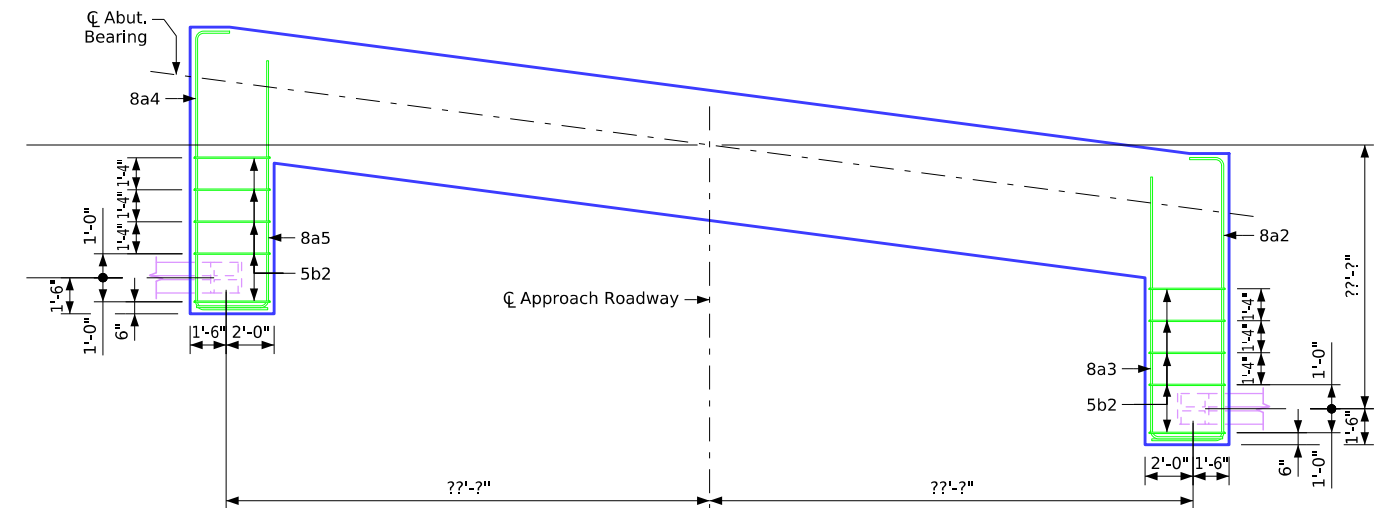
Table of Abutment Steps		
Step	? Abutment	? Abutment
a	???.??	???.??



Part Plan View

Part Section Through Backwall

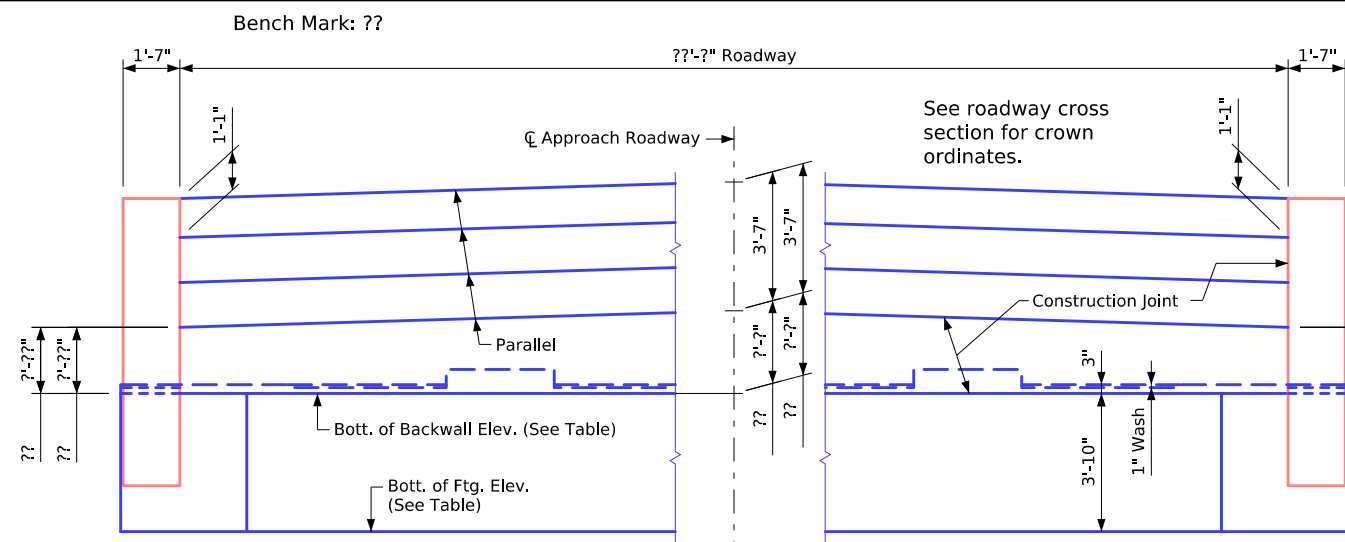
Note: For Views A-A and B-B
See Design Sheet No. ??



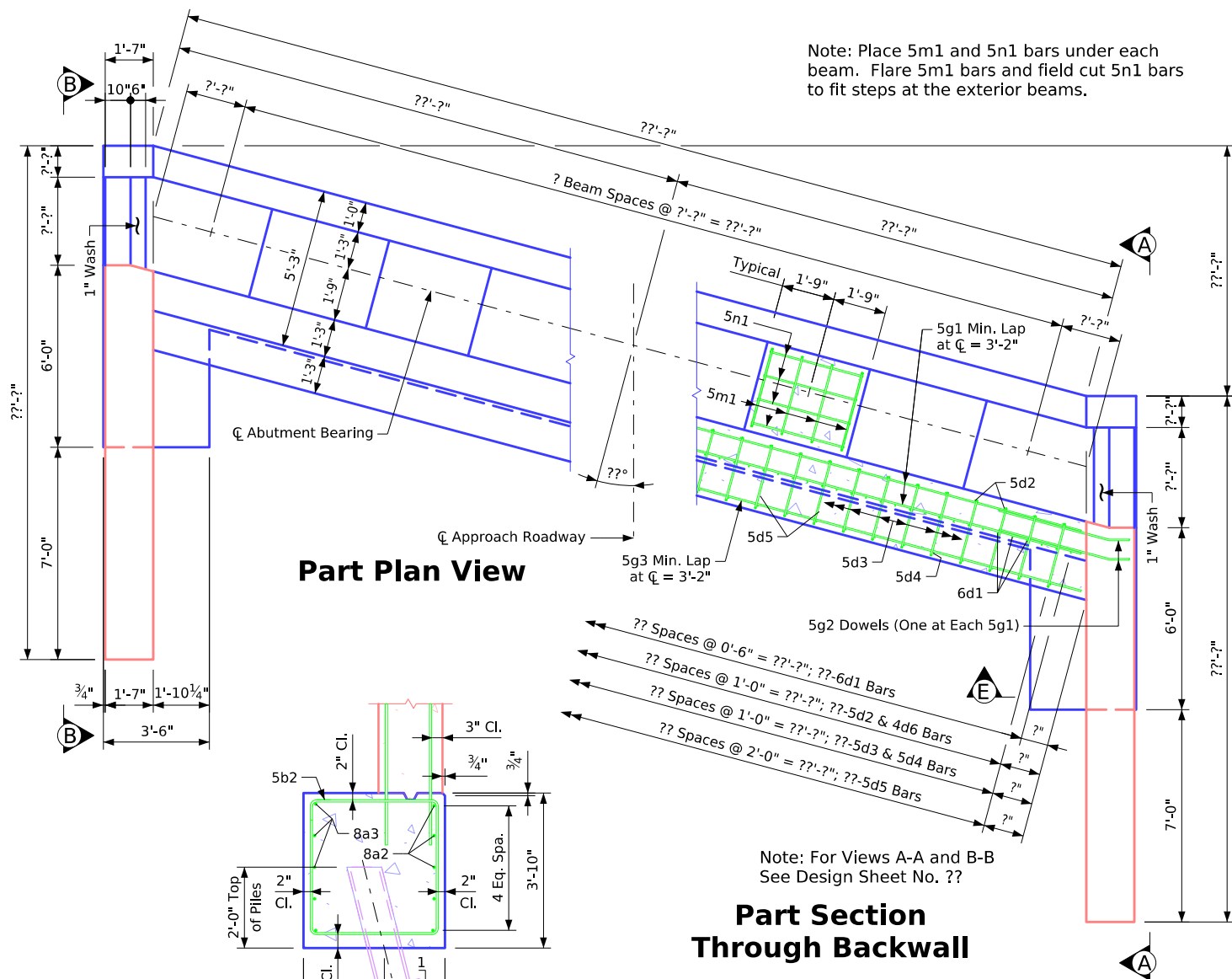
Piling Layout

Notes: Dimensions shown on Piling Layout are at bottom of footing. Batter piles in the direction shown.
 ?? - HP 10x42 steel bearing piling required at each abutment.
 Barrier Rail not shown in details.

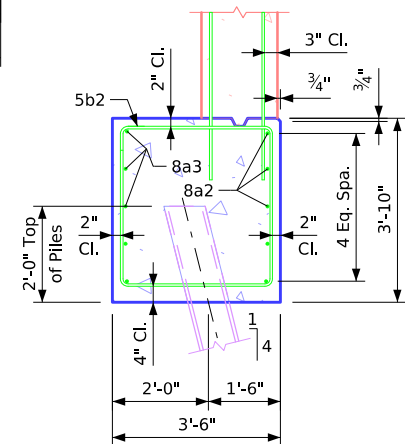
Abutment Footing Details



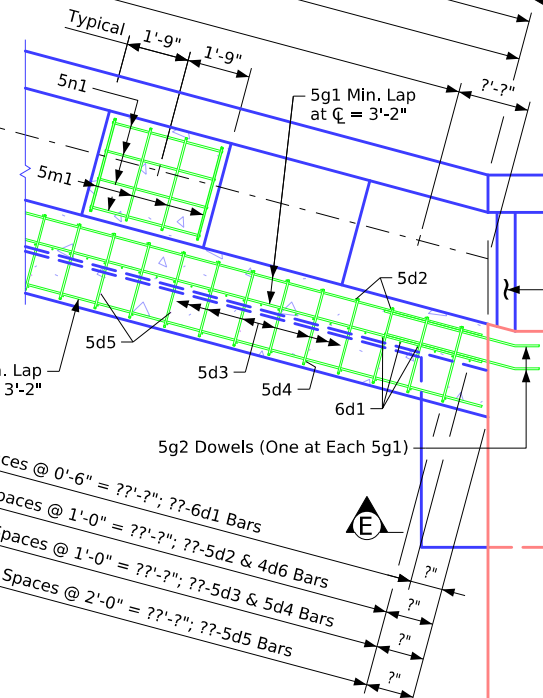
Rear Elevation



Part Plan View

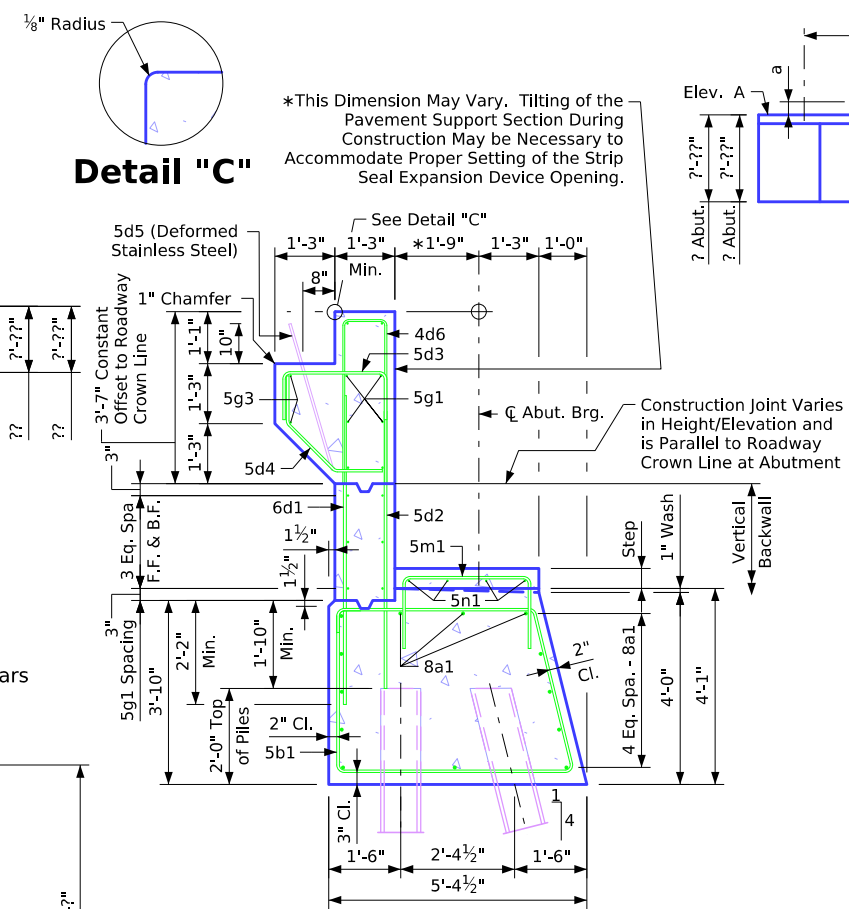


Section E-E



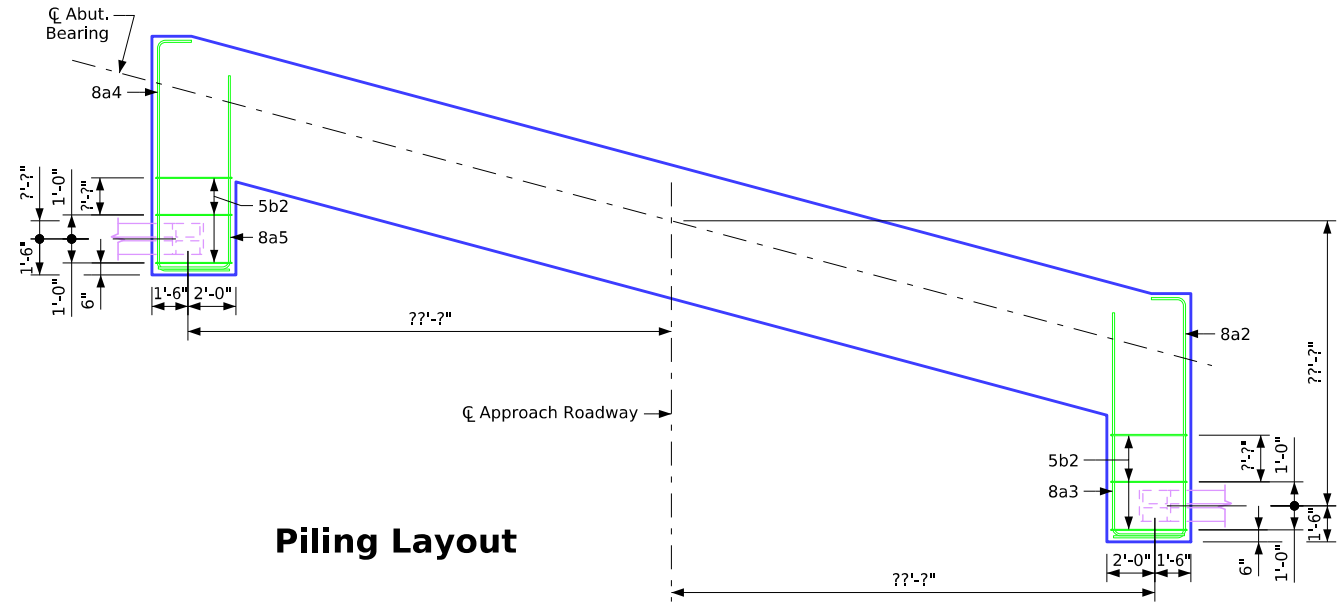
Part Section Through Backwall

Note: For Views A-A and B-B
See Design Sheet No. ??

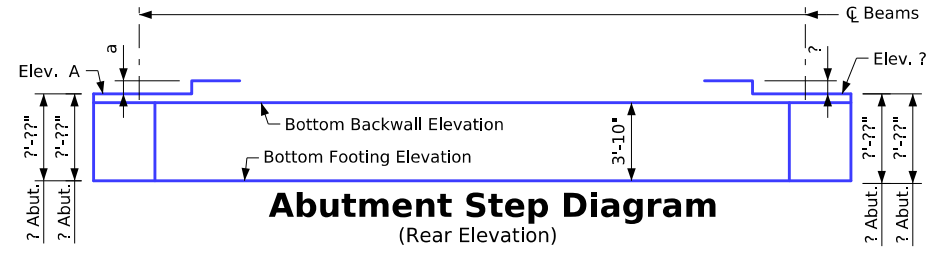


Section Through Abutment

Expansion Device not Shown



Piling Layout



Abutment Step Diagram

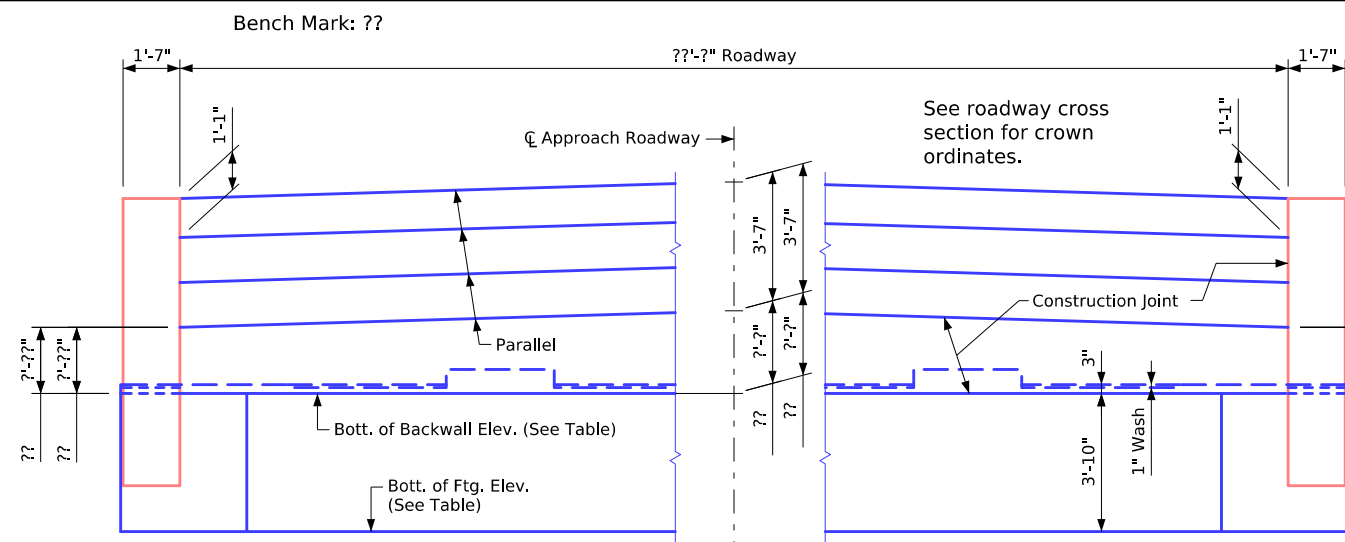
Table of Abutment Elevations		
Point	? Abutment	? Abutment
Elev. A	???.??	???.??
Bottom Backwall Elev.	???.??	???.??
Bottom Footing Elev.	???.??	???.??

Table of Abutment Steps

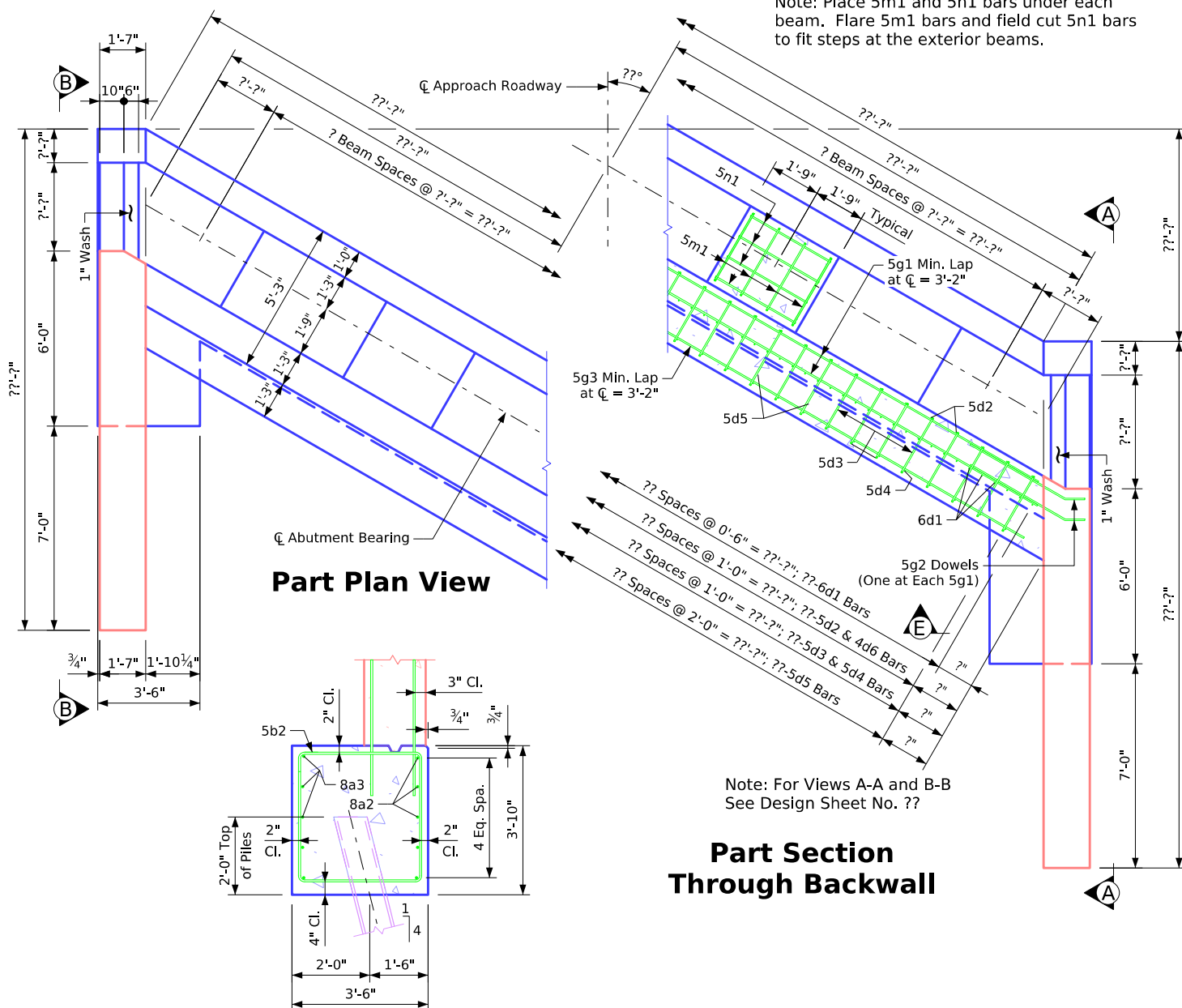
Step	? Abutment	? Abutment
a	???.??	???.??

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 ?? - HP 10x42 steel bearing piling required at each abutment.
 Barrier Rail not shown in details.

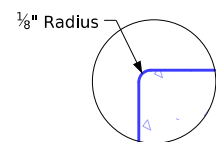
Abutment Footing Details



Rear Elevation

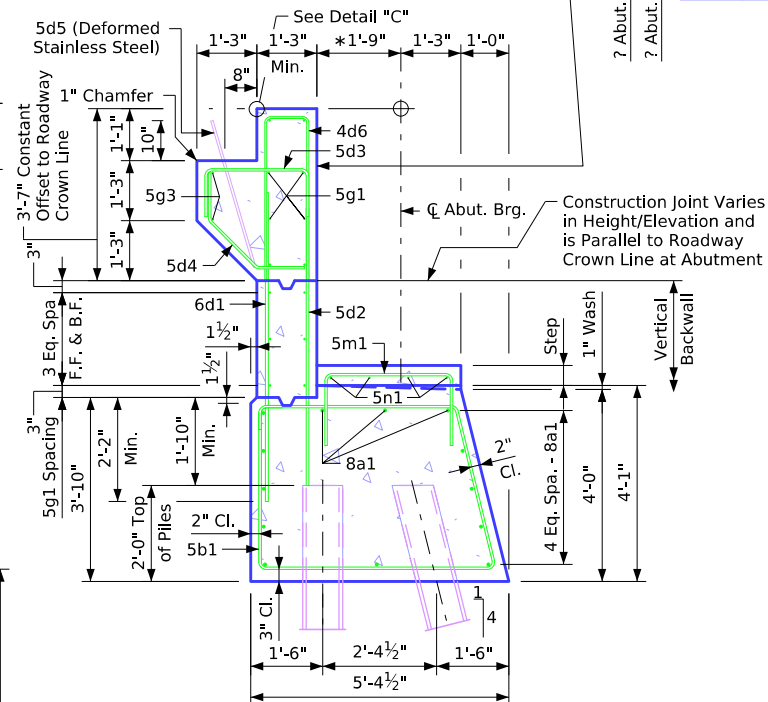


Section E-E



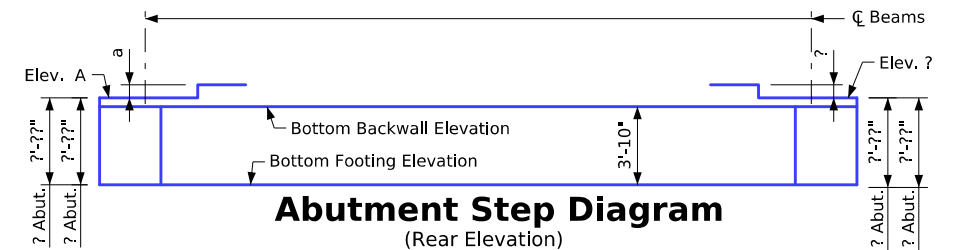
Detail "C"

*This Dimension May Vary. Tilting of the Pavement Support Section During Construction May be Necessary to Accommodate Proper Setting of the Strip Seal Expansion Device Opening.



Section Through Abutment

Expansion Device not Shown

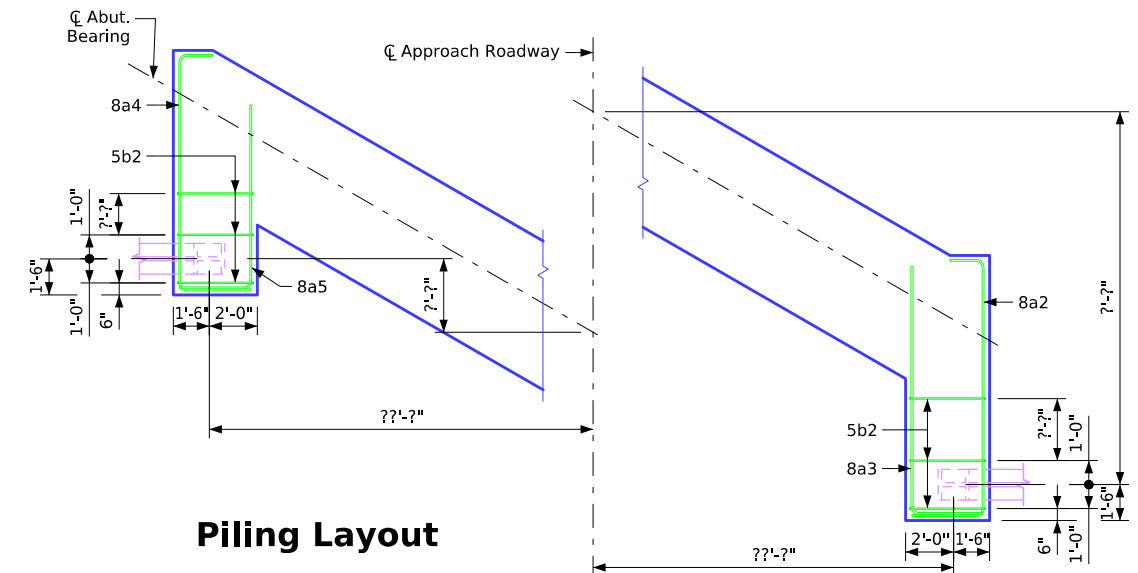


Abutment Step Diagram

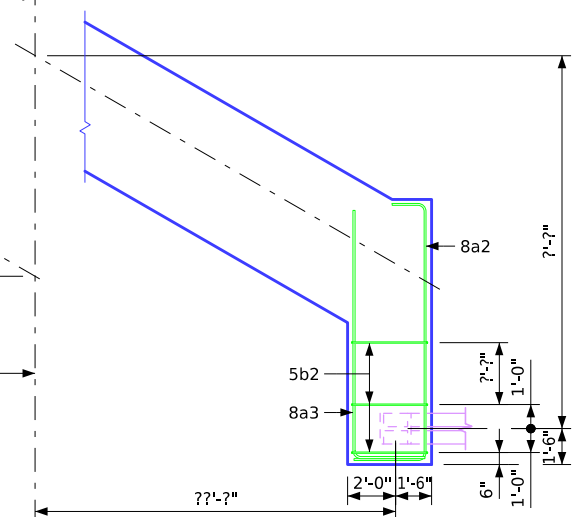
Table of Abutment Elevations		
Point	? Abutment	? Abutment
Elev. A	???.??	???.??
Bottom Backwall Elev.	???.??	???.??
Bottom Footing Elev.	???.??	???.??

Table of Abutment Steps

Step a	? Abutment ???.??	? Abutment ???.??

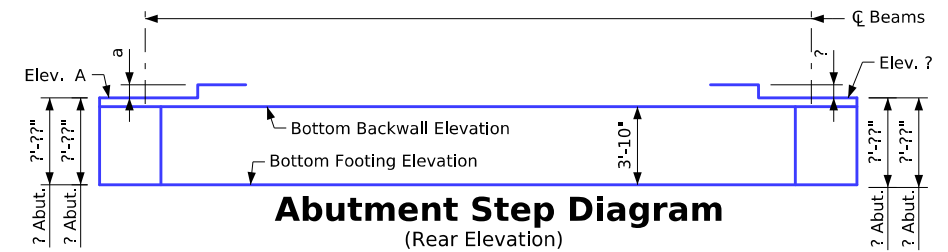


Piling Layout

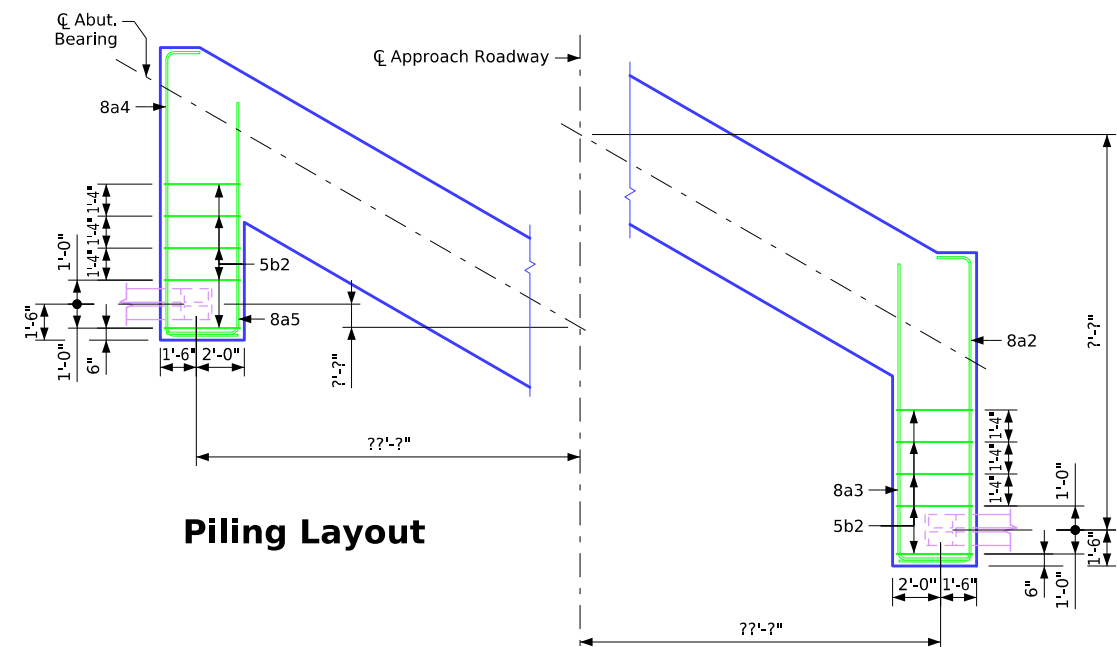


Abutment Footing Details

Notes: Dimensions shown on Piling Layout are at bottom of footing. Batter piles in the direction shown.
 ?? - HP 10x42 steel bearing piling required at each abutment.
 Barrier Rail not shown in details.



Note: Place 5m1 and 5n1 bars under each beam. Flare 5m1 bars and field cut 5n1 bars to fit steps at the exterior beams.



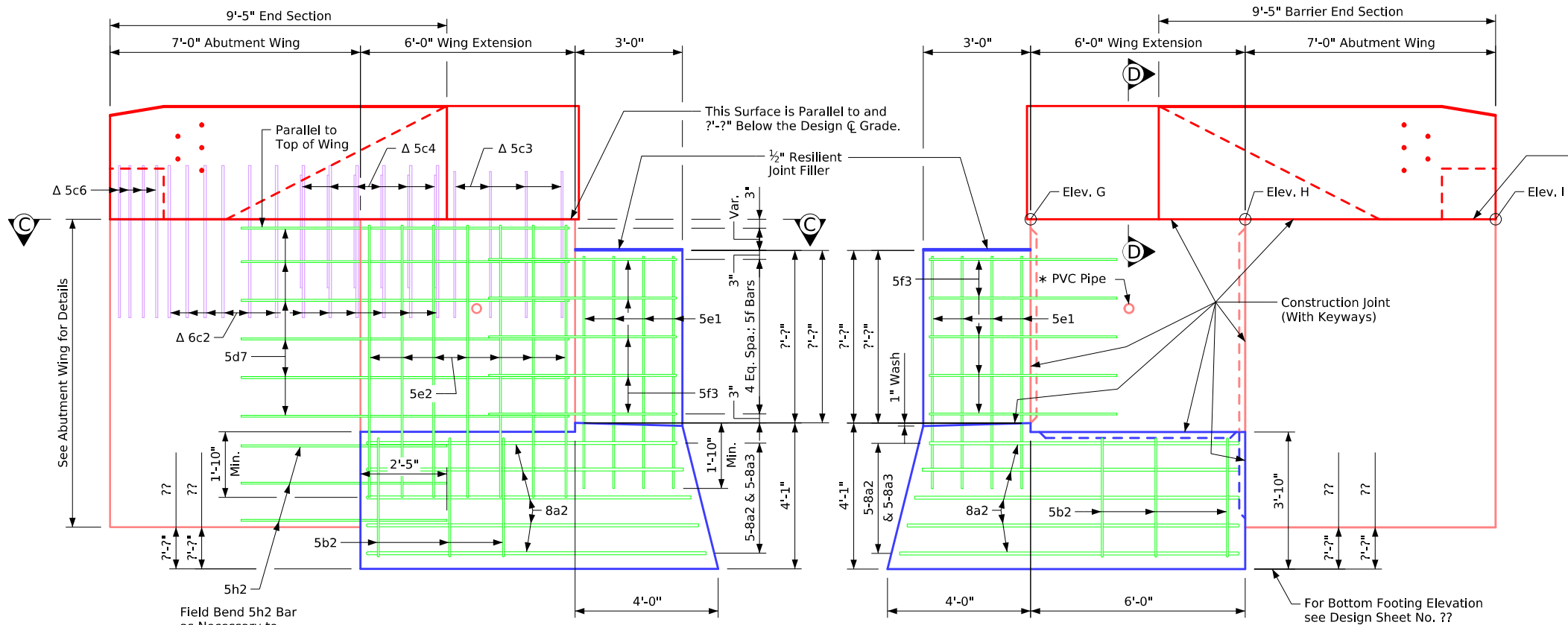
Abutment Footing Details

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 Barrier Rail not shown in details.

Table of Abutment Elevations		
Point	? Abutment	? Abutment
Elev. A	???.??	???.??
Bottom Backwall Elev.	???.??	???.??
Bottom Footing Elev.	???.??	???.??

Table of Abutment Steps		
Step	? Abutment	? Abutment
a	???.??	???.??

Correction 04-14: Changed Note About Barrier Rail Bars 5c3 & 5c14 to Barrier Rail Qty's. Instead of Bridge Deck Qty's.
BTSubBridges.dgn - 2019-BTCD - Issued 07-08. This Sheet Re-Issued 11-2023. Sheet Format Update.

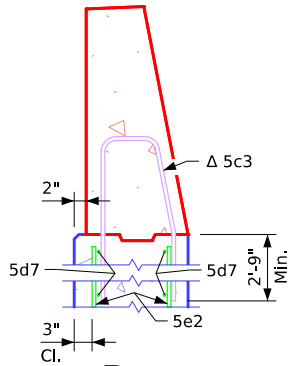


View A-A

Note: For Location of Views A-A & B-B see Design Sheet No. ??

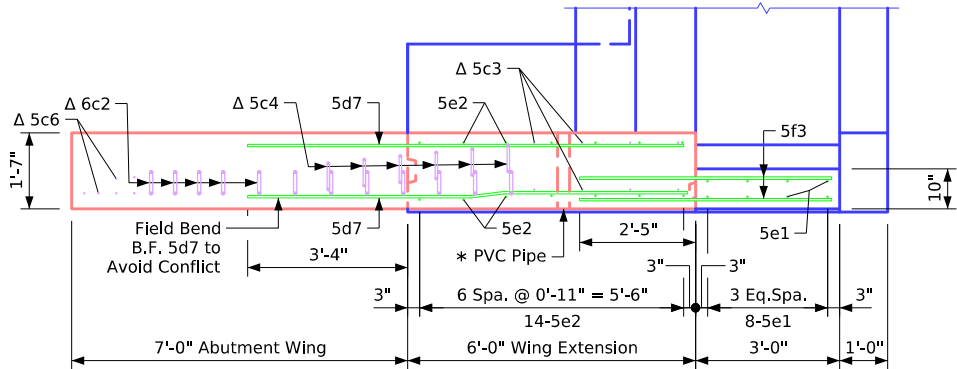
View B-B

* See Part Plan & Longit. Section Sheet for PVC Pipe Location



Part Section D-D

Table of Wingwall Elevations			
Location	Elev. G	Elev. H	Elev. I
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?



Section C-C

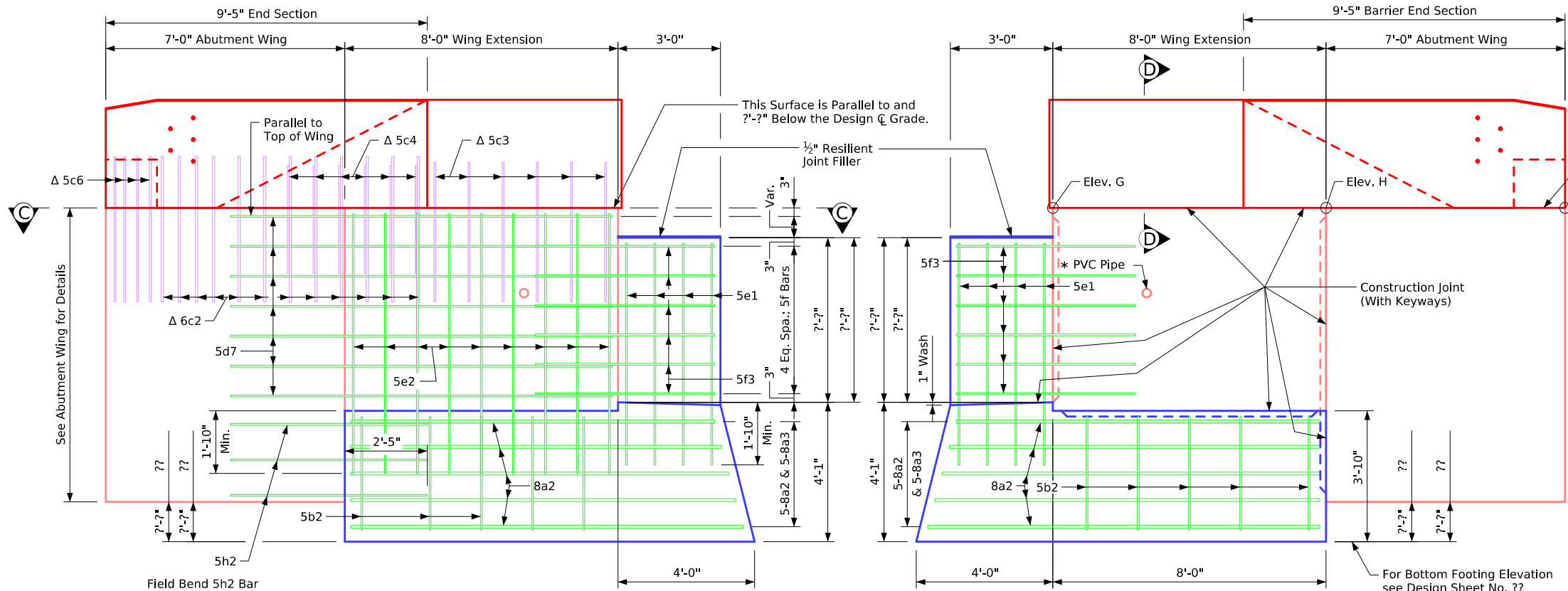
Note: Barrier Rail not shown

Δ Note: See Design Sheet No. ?? for details of barrier rail wing extension. Reinforcing bars 6c2, 5c3, 5c4, 5c6 are included in the Barrier Rail quantities.

Note to Detailer:
"PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Abutment Longitudinal Section

Correction 04-14: Changed Note About Barrier Rail Bars 5c3 & 5c14 to Barrier Rail Qty's. Instead of Bridge Deck Qty's.
BTSubBridges.dgn - 2019-BTE - Issued 07-08. This Sheet Re-Issued 11-2023. Sheet Format Update.

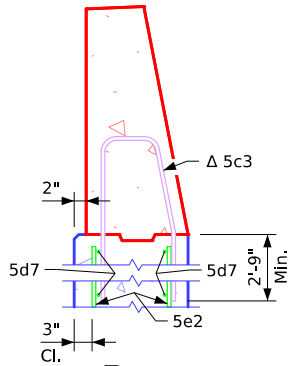


View A-A

Note: For Location of Views A-A & B-B see Design Sheet No. ??

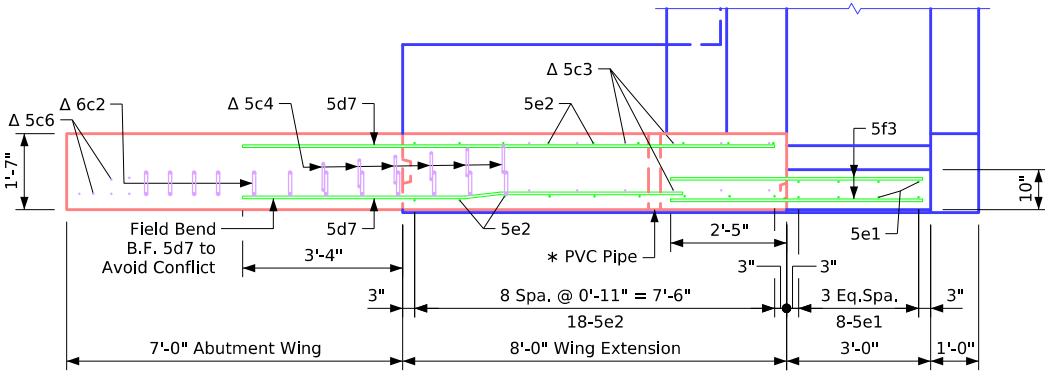
View B-B

* See Part Plan & Longit. Section Sheet for PVC Pipe Location



Part Section D-D

Table of Wingwall Elevations			
Location	Elev. G	Elev. H	Elev. I
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?



Section C-C

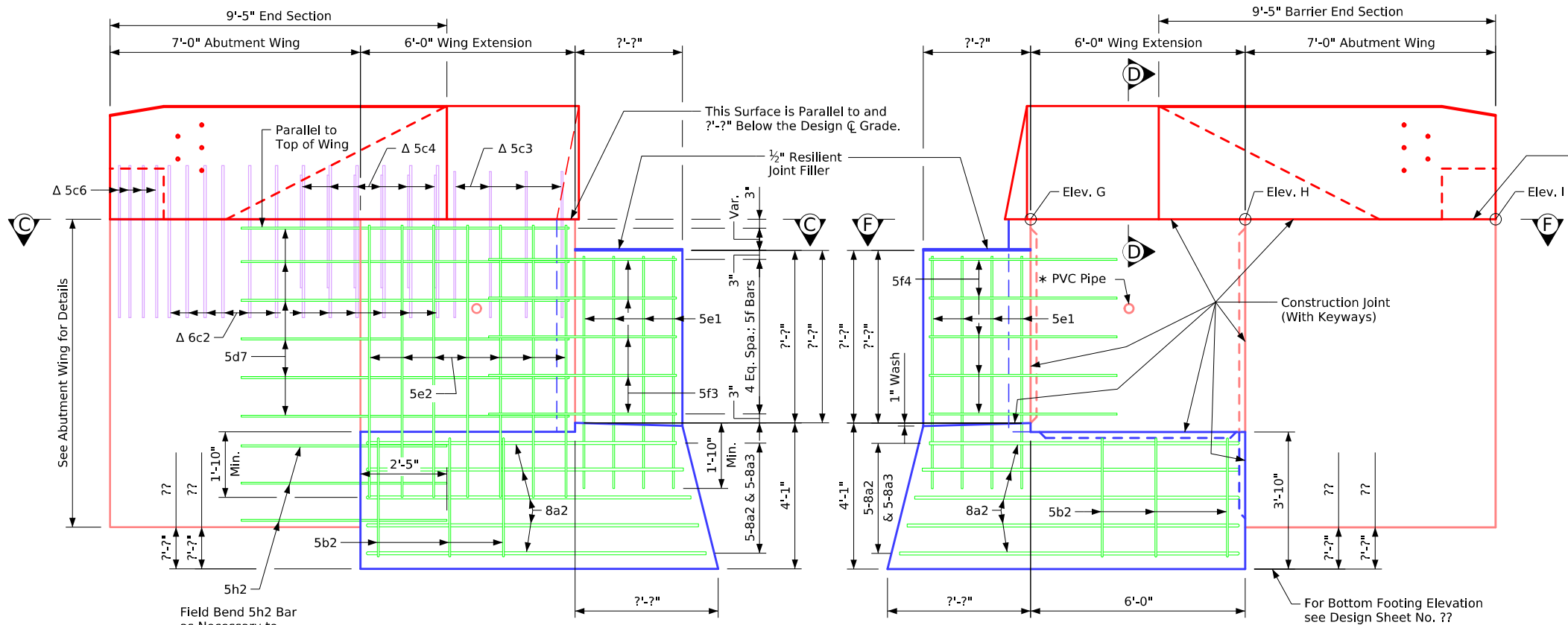
Note: Barrier Rail not shown

Δ Note: See Design Sheet No. ?? for details of barrier rail wing extension. Reinforcing bars 6c2, 5c3, 5c4, 5c6 are included in the Barrier Rail quantities.

Note to Detailer:
"PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Abutment Longitudinal Section

Correction 04-14: Changed Note About Barrier Rail Bars 5c3 & 5c14 to Barrier Rail Qty's. Instead of Bridge Deck Qty's.
Revised 10-2026: In View B-B, corrected horizontal maskwall bar mark label 5f4 (was 5f3).
BTSubBridges.dgn - 2100-BTCD - Issued 07-08. This Sheet Re-Issued 11-2023. Sheet Format Update.

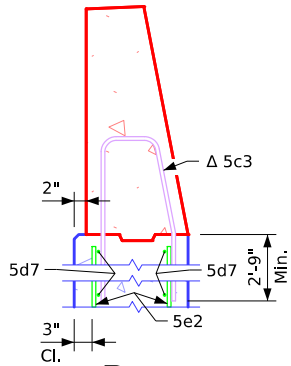


View A-A

Note: For Location of Views A-A & B-B see Design Sheet No. ??

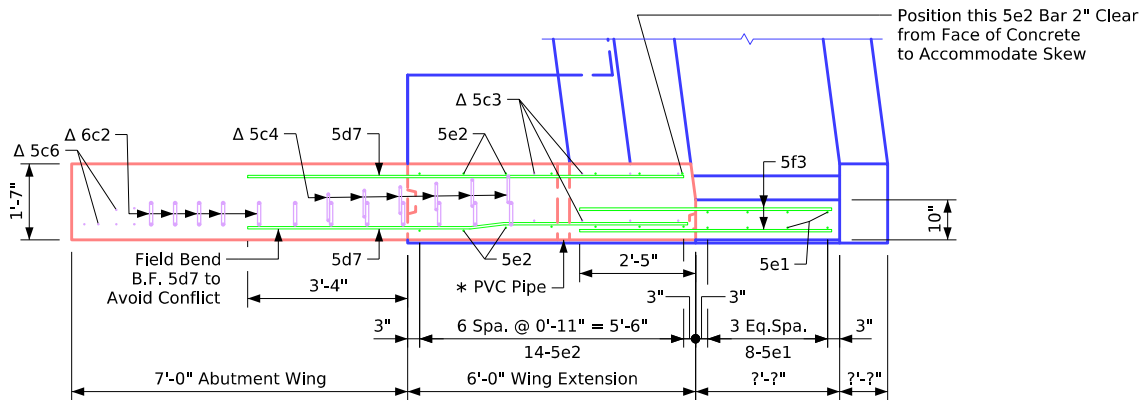
View B-B

* See Part Plan & Longit. Section Sheet for PVC Pipe Location



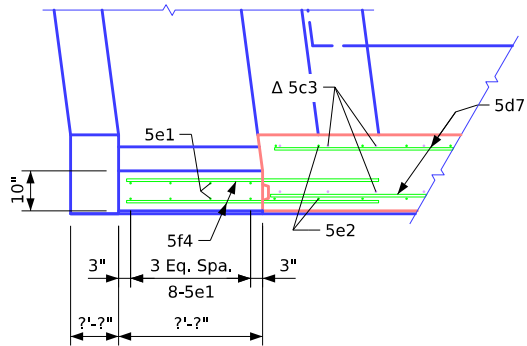
Part Section D-D

Table of Wingwall Elevations			
Location	Elev. G	Elev. H	Elev. I
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?



Section C-C

Note: Barrier Rail not shown



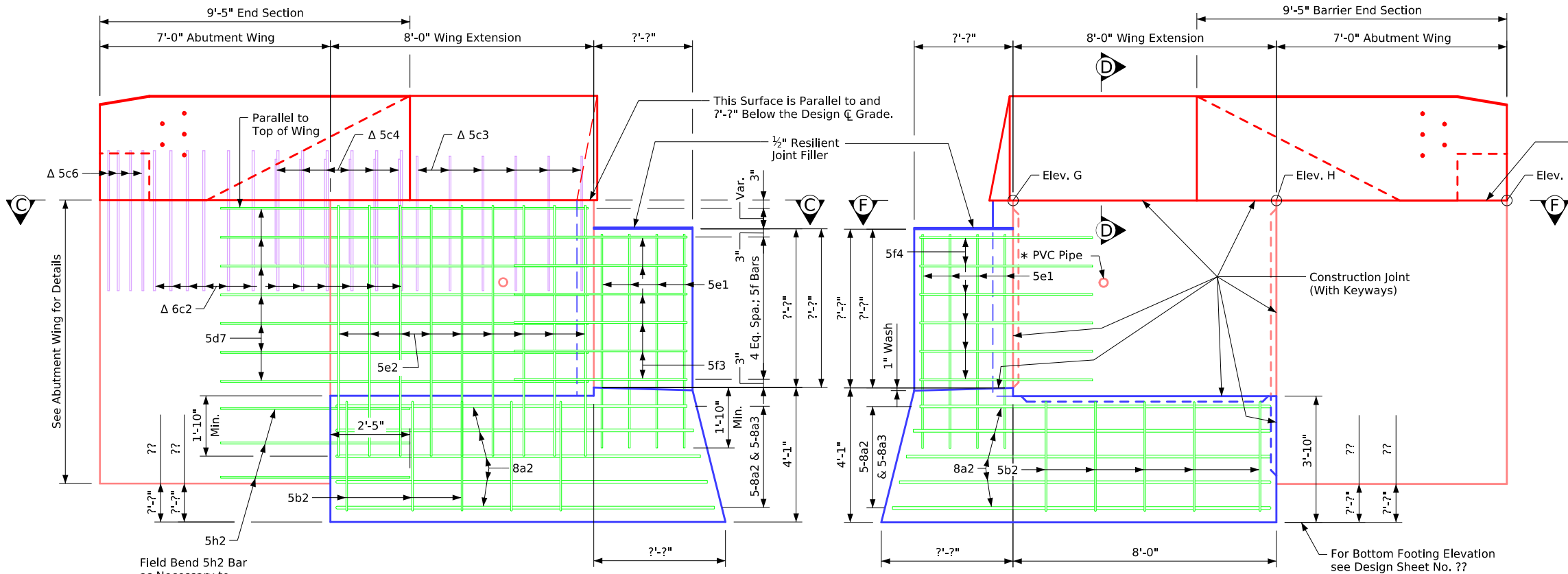
Part Section F-F

Δ Note: See Design Sheet No. ?? for details of barrier rail wing extension. Reinforcing bars 6c2, 5c3, 5c4, 5c6 are included in the Barrier Rail quantities.

Note to Detailer:
"PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Abutment Longitudinal Section

Correction 04-14: Changed Note About Barrier Rail Bars 5c3 & 5c14 to Barrier Rail Qty's. Instead of Bridge Deck Qty's.
Revised 10-2026: In View B-B, corrected horizontal maskwall bar mark label 5f4 (was 5f3).
BTSubBridges.dgn - 2100-BTE - Issued 07-08. This Sheet Re-Issued 11-2023. Sheet Format Update.

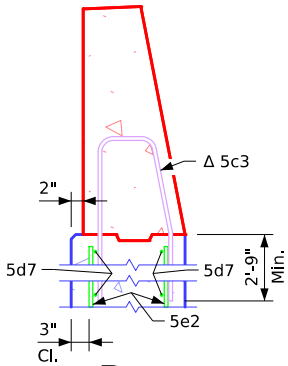


View A-A

Note: For Location of Views A-A & B-B see Design Sheet No. ??

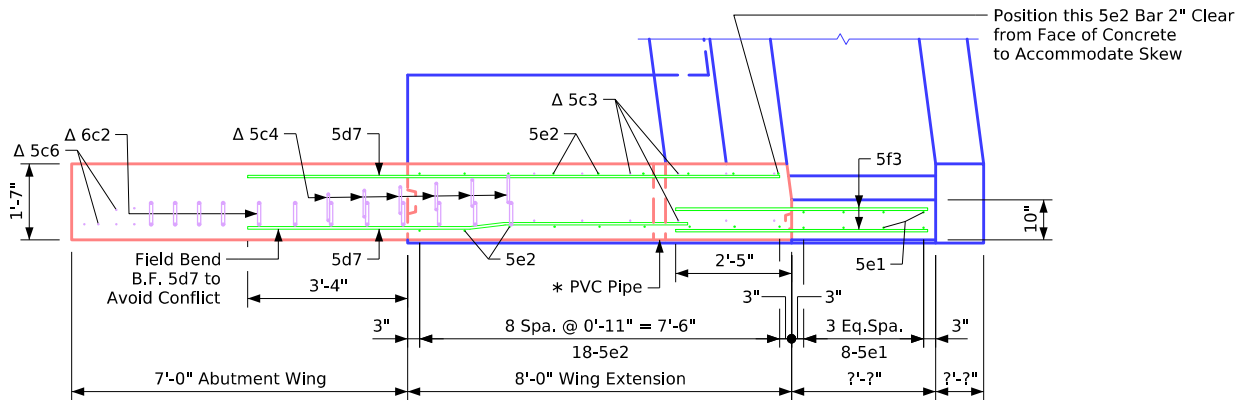
View B-B

* See Part Plan & Longit. Section Sheet for PVC Pipe Location



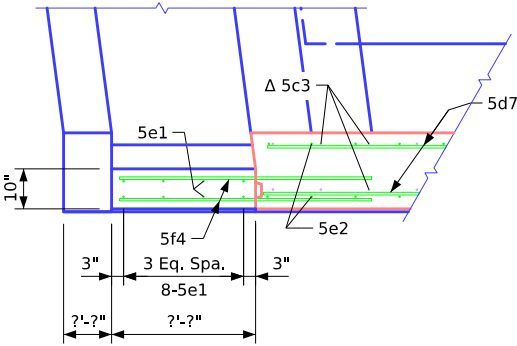
Part Section D-D

Table of Wingwall Elevations			
Location	Elev. G	Elev. H	Elev. I
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?



Section C-C

Note: Barrier Rail not shown



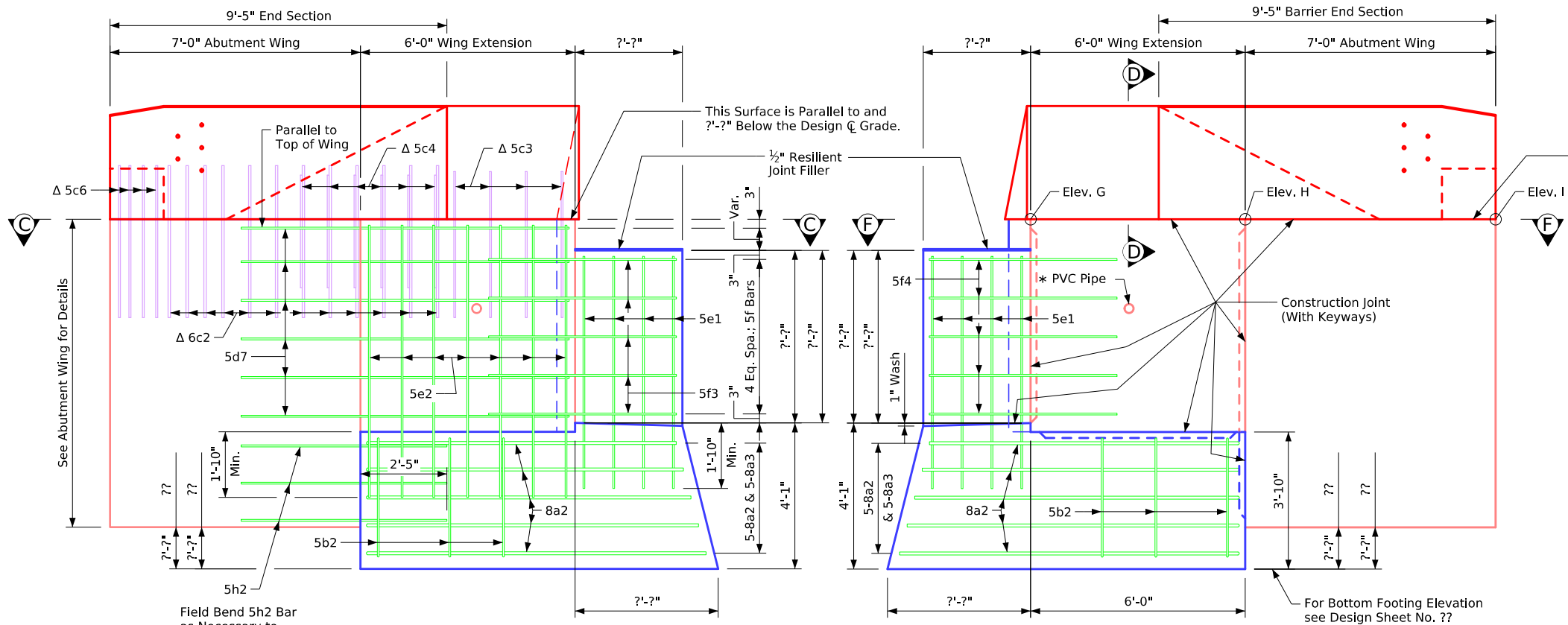
Part Section F-F

Δ Note: See Design Sheet No. ?? for details of barrier rail wing extension. Reinforcing bars 6c2, 5c3, 5c4, 5c6 are included in the Barrier Rail quantities.

Note to Detailer:
"PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Abutment Longitudinal Section

Correction 04-14: Changed Note About Barrier Rail Bars 5c3 & 5c14 to Barrier Rail Qty's. Instead of Bridge Deck Qty's.
Revised 10-2026: In View B-B, corrected horizontal maskwall bar mark label 5f4 (was 5f3).
BTSubBridges.dgn - 2101-BTCD - Issued 07-08. This Sheet Re-Issued 11-2023. Sheet Format Update.

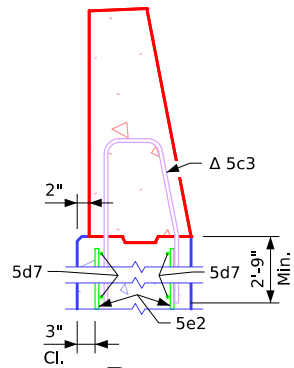


View A-A

Note: For Location of Views A-A & B-B see Design Sheet No. ??

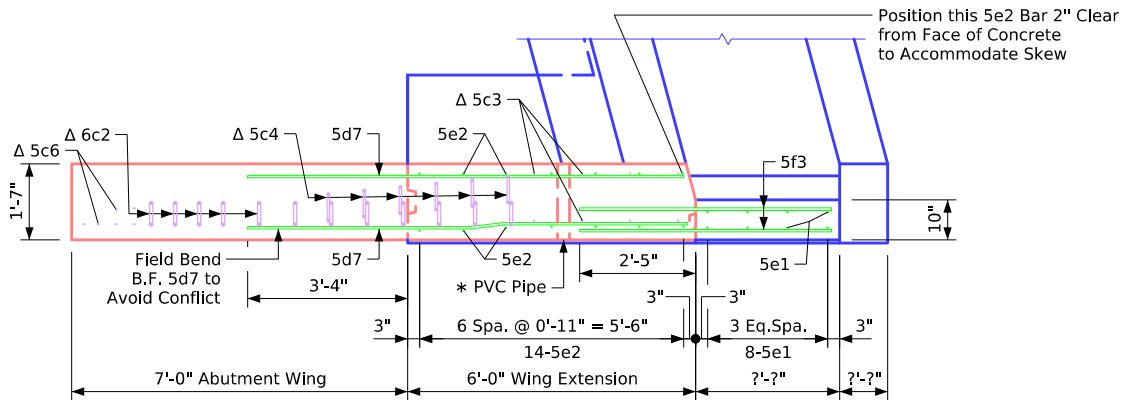
View B-B

* See Part Plan & Longit. Section Sheet for PVC Pipe Location



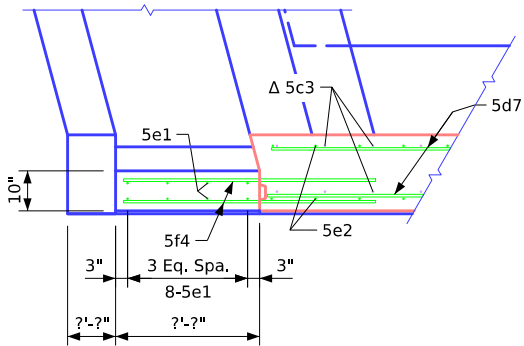
Part Section D-D

Table of Wingwall Elevations			
Location	Elev. G	Elev. H	Elev. I
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?



Section C-C

Note: Barrier Rail not shown



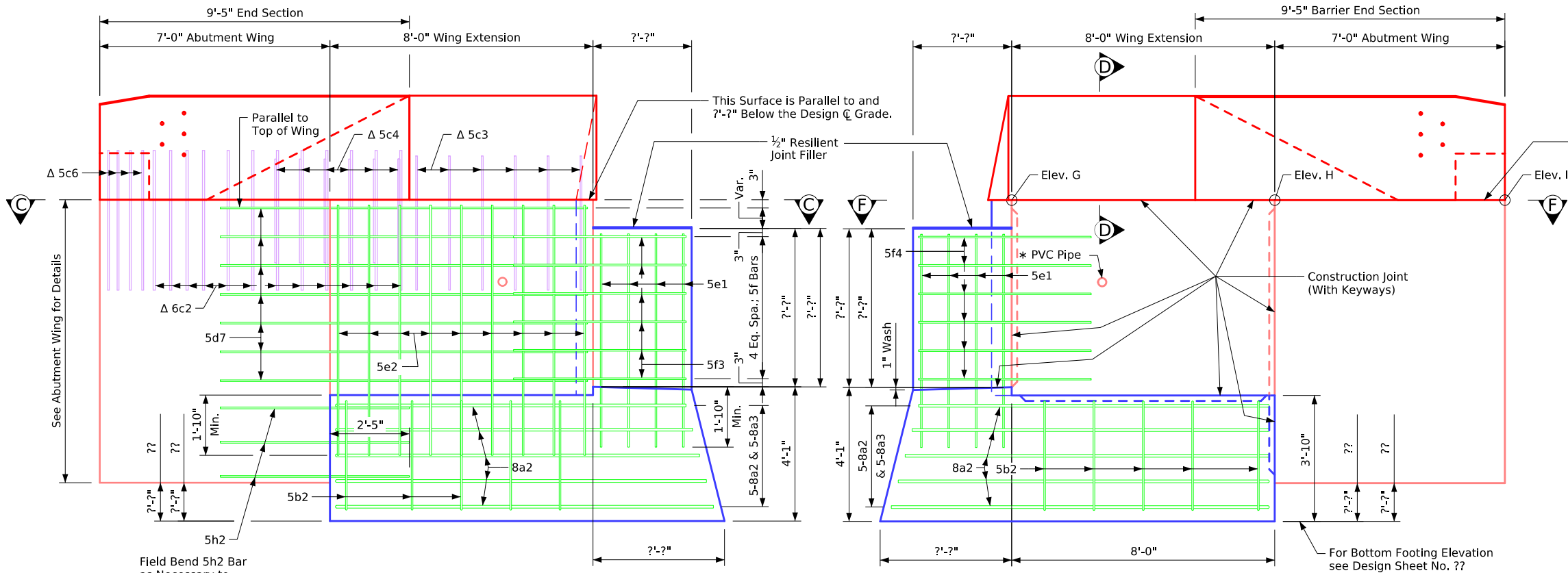
Part Section F-F

Δ Note: See Design Sheet No. ?? for details of barrier rail wing extension. Reinforcing bars 6c2, 5c3, 5c4, 5c6 are included in the Barrier Rail quantities.

Note to Detailer:
"PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Abutment Longitudinal Section

Correction 04-14: Changed Note About Barrier Rail Bars 5c3 & 5c14 to Barrier Rail Qty's. Instead of Bridge Deck Qty's.
Revised 10-2026: In View B-B, corrected horizontal maskwall bar mark label 5f4 (was 5f3).
BTSubBridges.dgn - 2101-BTE - Issued 07-08. This Sheet Re-Issued 11-2023. Sheet Format Update.

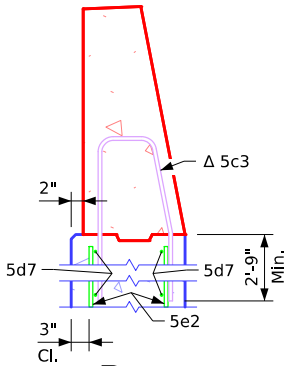


View A-A

Note: For Location of Views A-A & B-B see Design Sheet No. ??

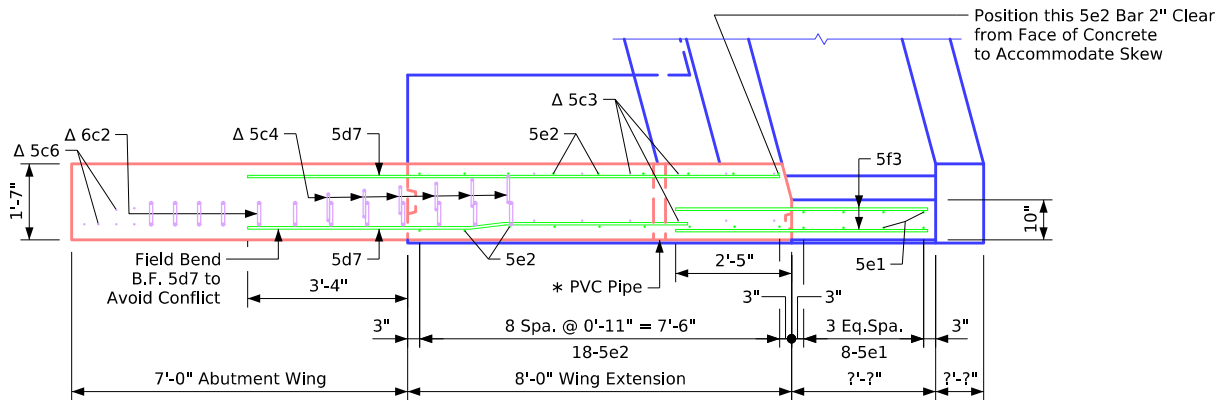
View B-B

* See Part Plan & Longit. Section Sheet for PVC Pipe Location



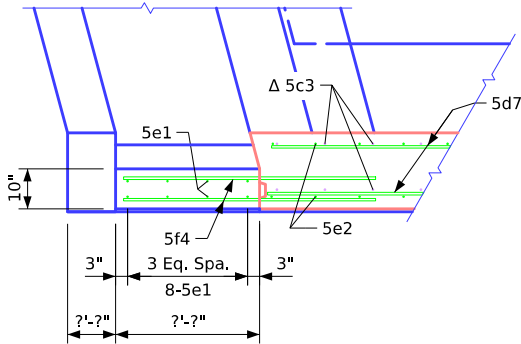
Part Section D-D

Table of Wingwall Elevations			
Location	Elev. G	Elev. H	Elev. I
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?



Section C-C

Note: Barrier Rail not shown



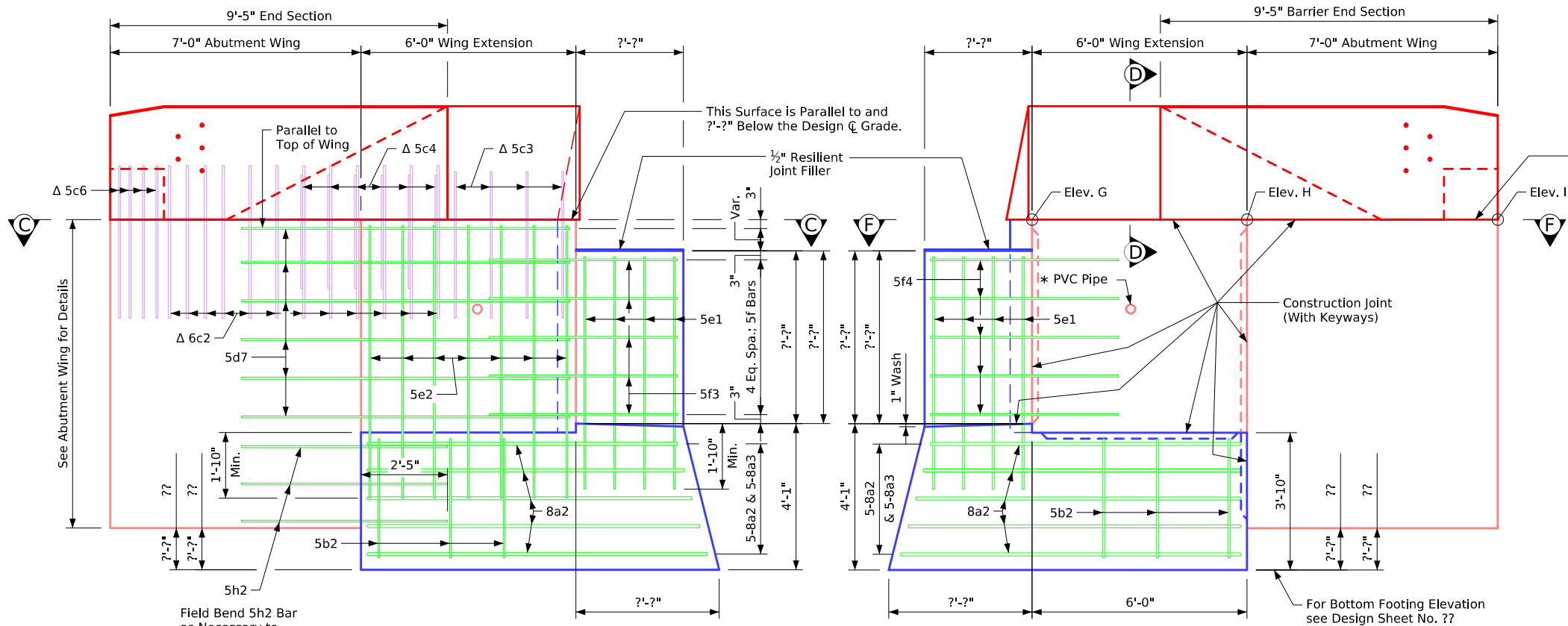
Part Section F-F

Δ Note: See Design Sheet No. ?? for details of barrier rail wing extension. Reinforcing bars 6c2, 5c3, 5c4, 5c6 are included in the Barrier Rail quantities.

Note to Detailer:
"PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Abutment Longitudinal Section

Correction 04-14: Changed Note About Barrier Rail Bars 5c3 & 5c14 to Barrier Rail Qty's. Instead of Bridge Deck Qty's.
Revised 10-2026: In View B-B, corrected horizontal maskwall bar mark label 5f4 (was 5f3).
BTSubBridges.dgn - 2102-BTCD - Issued 07-08. This Sheet Re-Issued 11-2023. Sheet Format Update.

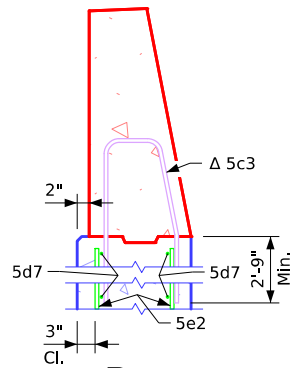


View A-A

Note: For Location of Views A-A & B-B see Design Sheet No. ??

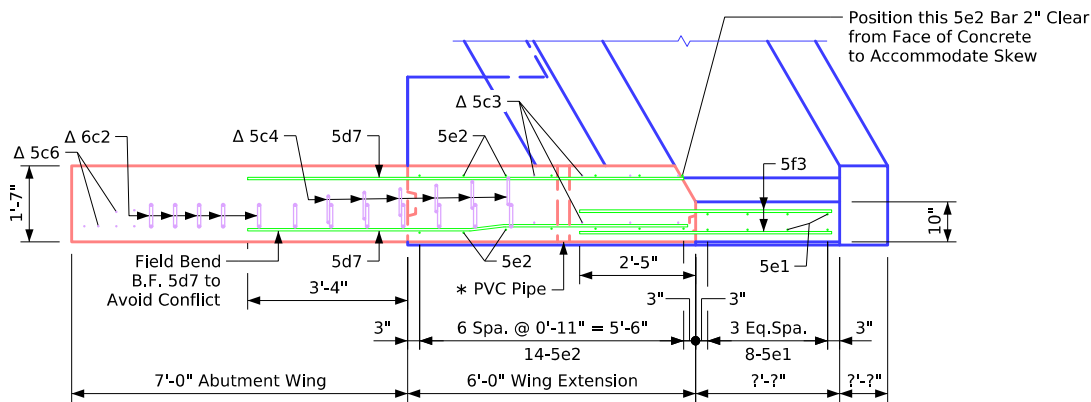
View B-B

* See Part Plan & Longit. Section Sheet for PVC Pipe Location



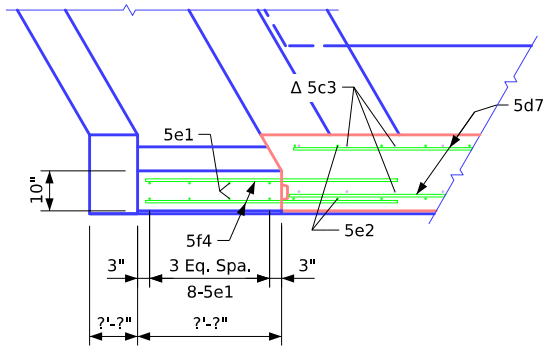
Part Section D-D

Table of Wingwall Elevations			
Location	Elev. G	Elev. H	Elev. I
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?



Section C-C

Note: Barrier Rail not shown



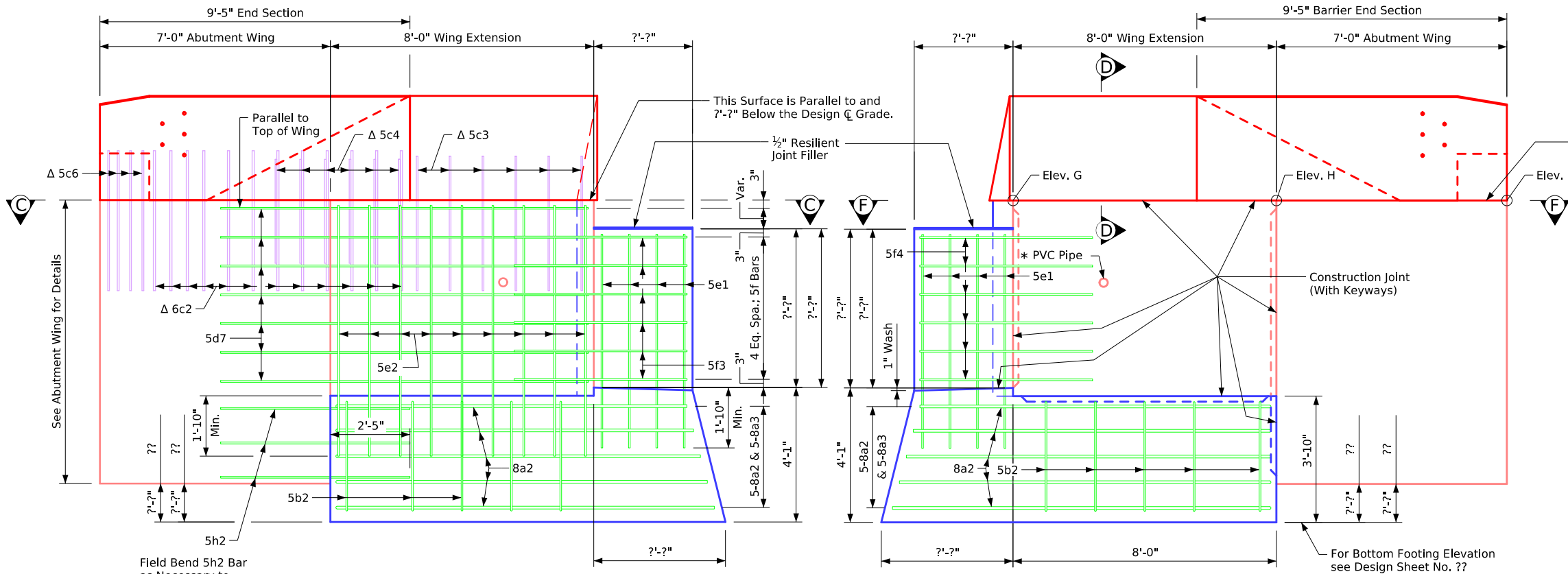
Part Section F-F

Δ Note: See Design Sheet No. ?? for details of barrier rail wing extension. Reinforcing bars 6c2, 5c3, 5c4, 5c6 are included in the Barrier Rail quantities.

Note to Detailer:
"PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Abutment Longitudinal Section

Correction 04-14: Changed Note About Barrier Rail Bars 5c3 & 5c14 to Barrier Rail Qty's. Instead of Bridge Deck Qty's.
Revised 10-2026: In View B-B, corrected horizontal maskwall bar mark label 5f4 (was 5f3).
BTSubBridges.dgn - 2102-BTE - Issued 07-08. This Sheet Re-Issued 11-2023. Sheet Format Update.

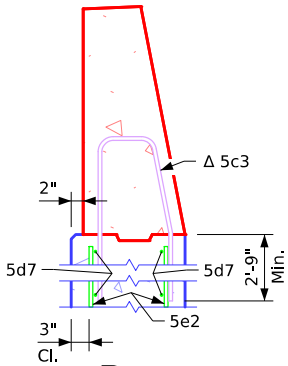


View A-A

Note: For Location of Views A-A & B-B see Design Sheet No. ??

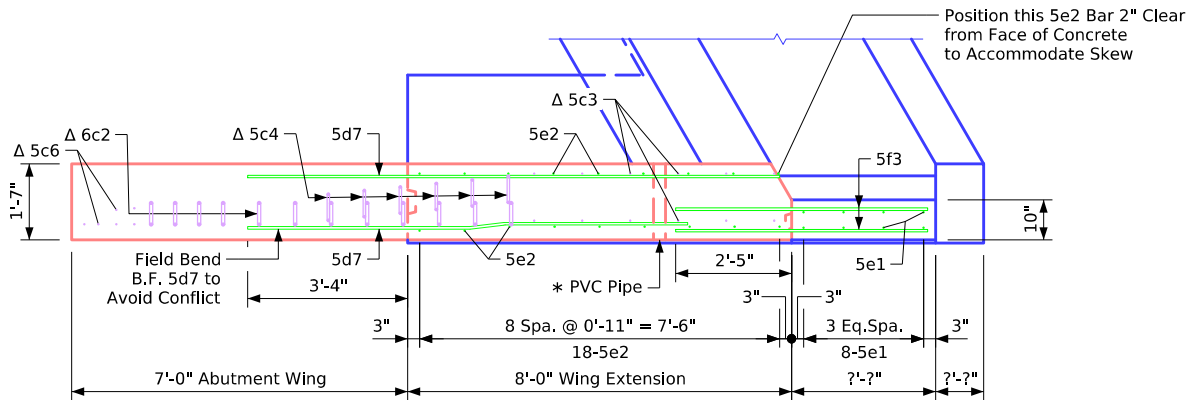
View B-B

* See Part Plan & Longit. Section Sheet for PVC Pipe Location



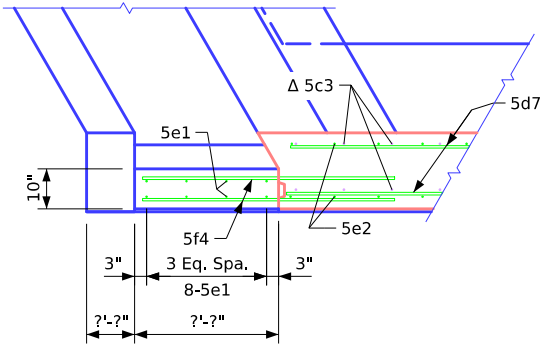
Part Section D-D

Table of Wingwall Elevations			
Location	Elev. G	Elev. H	Elev. I
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?



Section C-C

Note: Barrier Rail not shown



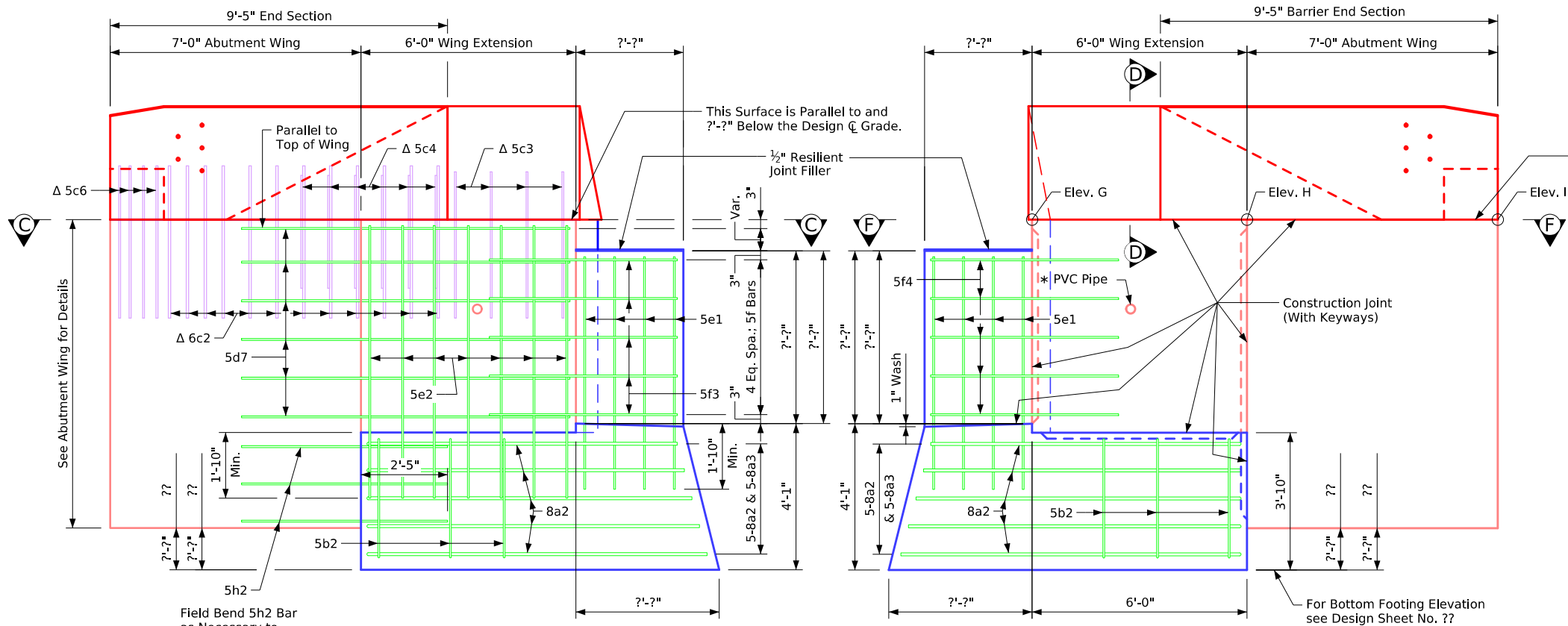
Part Section F-F

Δ Note: See Design Sheet No. ?? for details of barrier rail wing extension. Reinforcing bars 6c2, 5c3, 5c4, 5c6 are included in the Barrier Rail quantities.

Note to Detailer:
"PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Abutment Longitudinal Section

Correction 04-14: Changed Note About Barrier Rail Bars 5c3 & 5c14 to Barrier Rail Qty's. Instead of Bridge Deck Qty's.
Revised 10-2026: In View B-B, corrected horizontal maskwall bar mark label 5f4 (was 5f3).
BTSubBridges.dgn - 2103-BTCD - Issued 07-08. This Sheet Re-issued 11-2023. Sheet Format Update.

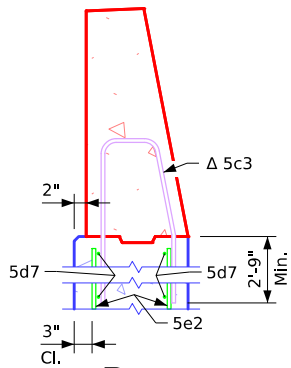


View A-A

Note: For Location of Views A-A & B-B see Design Sheet No. ??

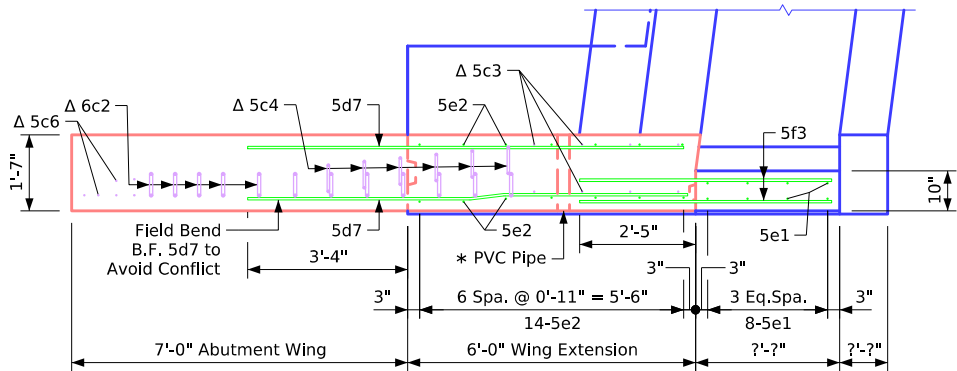
View B-B

* See Part Plan & Longit. Section Sheet for PVC Pipe Location



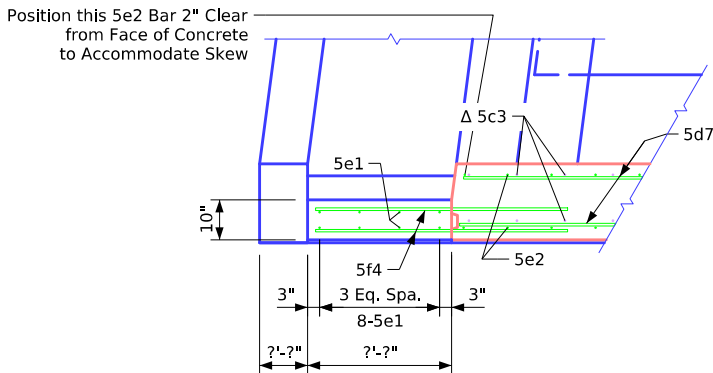
Part Section D-D

Table of Wingwall Elevations			
Location	Elev. G	Elev. H	Elev. I
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?



Section C-C

Note: Barrier Rail not shown



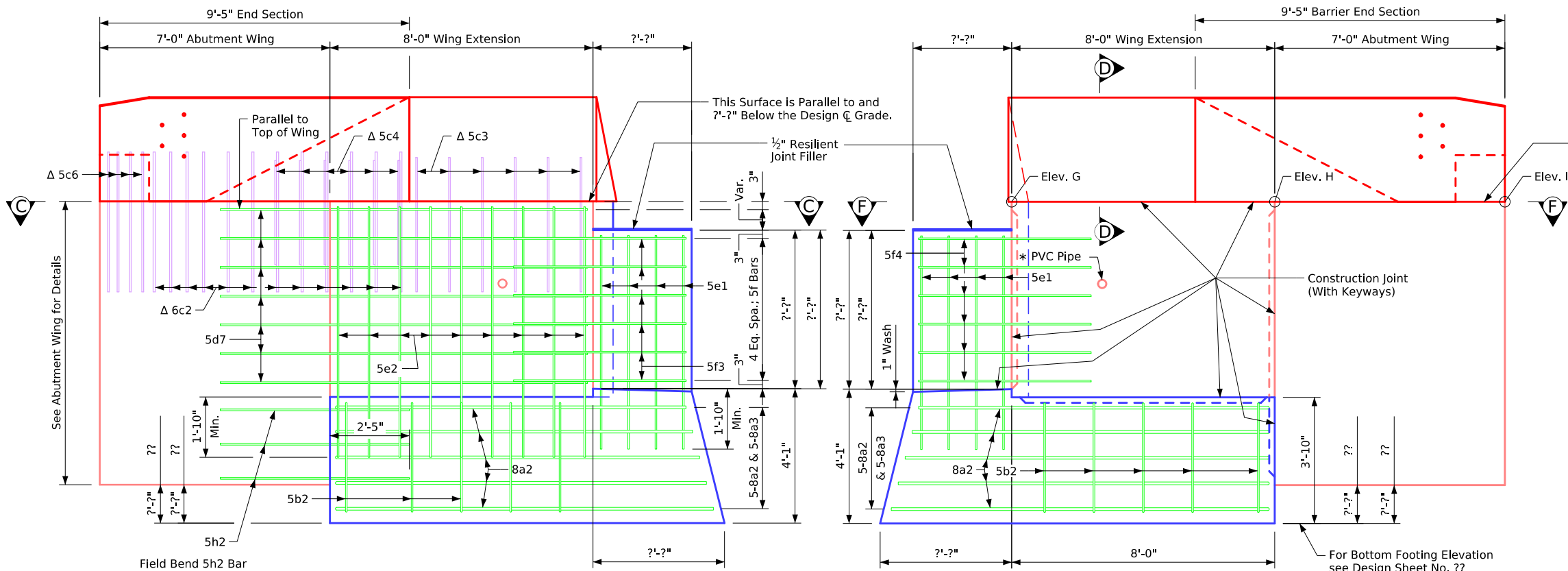
Part Section F-F

Δ Note: See Design Sheet No. ?? for details of barrier rail wing extension. Reinforcing bars 6c2, 5c3, 5c4, 5c6 are included in the Barrier Rail quantities.

Note to Detailer:
"PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Abutment Longitudinal Section

Correction 04-14: Changed Note About Barrier Rail Bars 5c3 & 5c14 to Barrier Rail Qty's. Instead of Bridge Deck Qty's.
Revised 10-2026: In View B-B, corrected horizontal maskwall bar mark label 5f4 (was 5f3).
BTSubBridges.dgn - 2103-BTE - Issued 07-08. This Sheet Re-Issued 11-2023. Sheet Format Update.

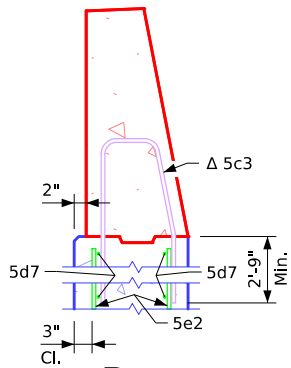


View A-A

Note: For Location of Views A-A & B-B see Design Sheet No. ??

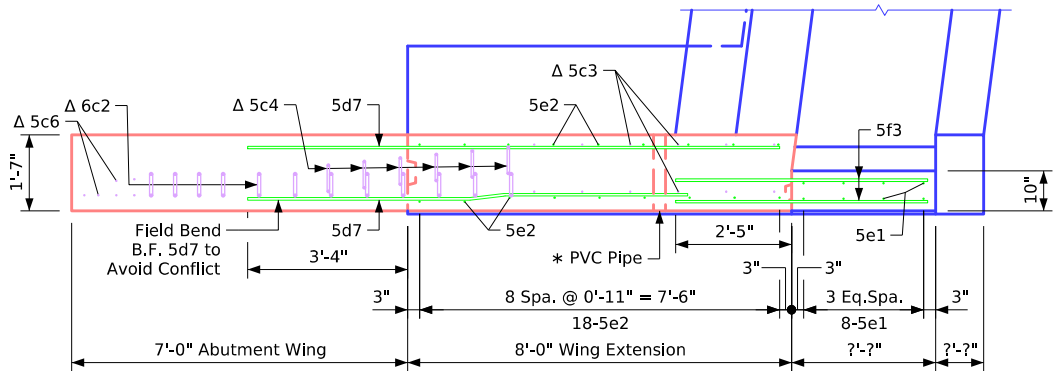
View B-B

* See Part Plan & Longit. Section Sheet for PVC Pipe Location



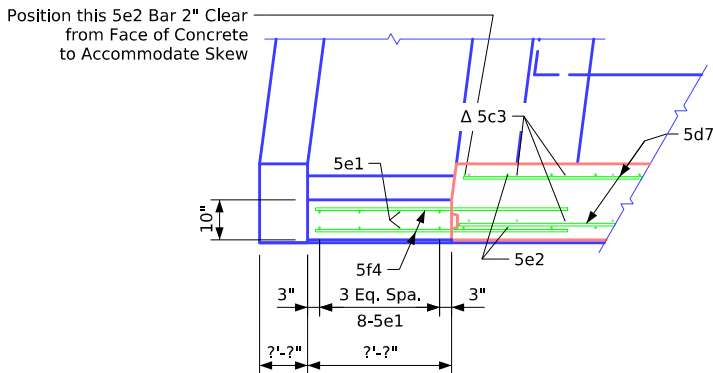
Part Section D-D

Table of Wingwall Elevations			
Location	Elev. G	Elev. H	Elev. I
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?



Section C-C

Note: Barrier Rail not shown



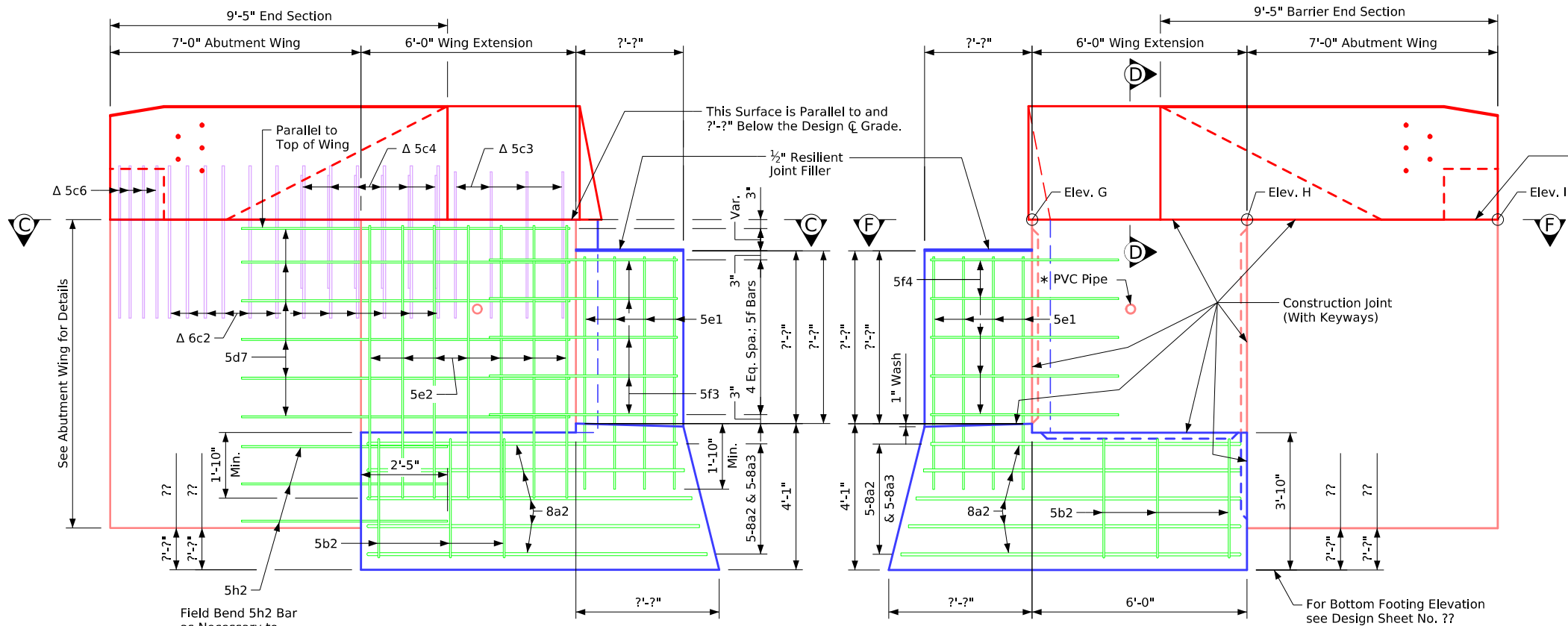
Part Section F-F

Δ Note: See Design Sheet No. ?? for details of barrier rail wing extension. Reinforcing bars 6c2, 5c3, 5c4, 5c6 are included in the Barrier Rail quantities.

Note to Detailer:
"PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Abutment Longitudinal Section

Correction 04-14: Changed Note About Barrier Rail Bars 5c3 & 5c14 to Barrier Rail Qty's. Instead of Bridge Deck Qty's.
Revised 10-2026: In View B-B, corrected horizontal maskwall bar mark label 5f4 (was 5f3).
BTSubBridges.dgn - 2104-BTCD - Issued 07-08. This Sheet Re-Issued 11-2023. Sheet Format Update.

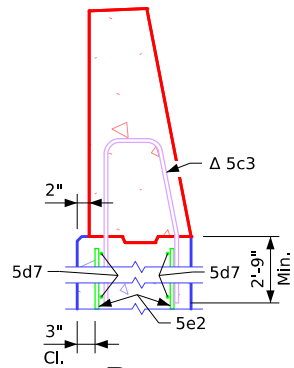


View A-A

Note: For Location of Views A-A & B-B see Design Sheet No. ??

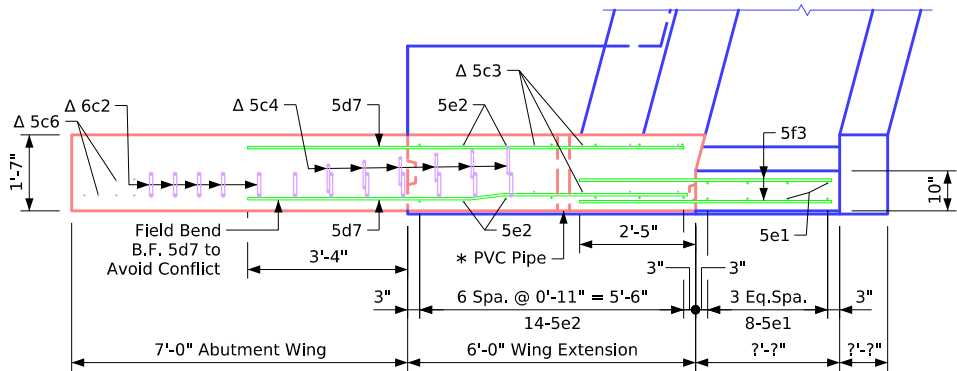
View B-B

* See Part Plan & Longit. Section Sheet for PVC Pipe Location



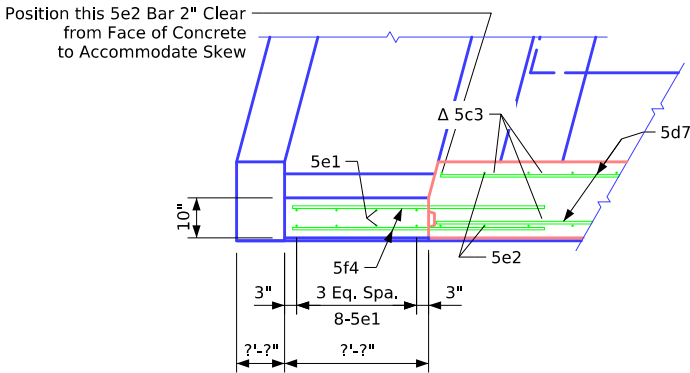
Part Section D-D

Table of Wingwall Elevations			
Location	Elev. G	Elev. H	Elev. I
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?



Section C-C

Note: Barrier Rail not shown



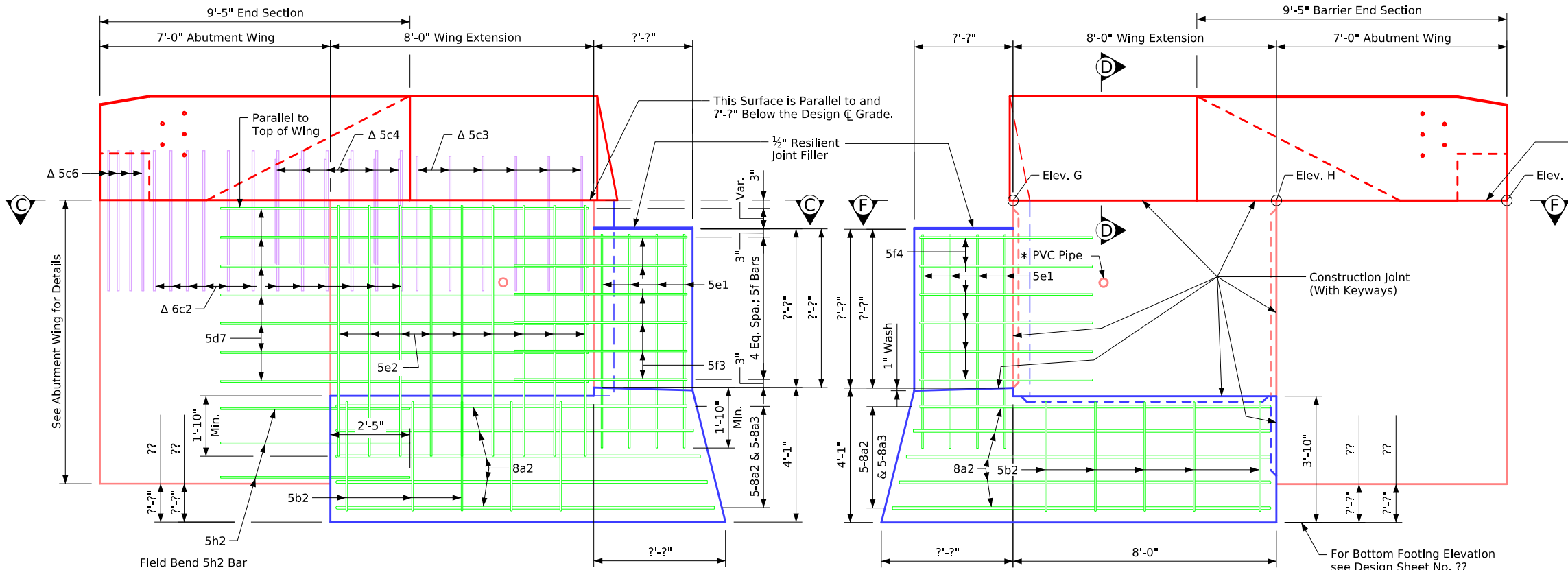
Part Section F-F

Δ Note: See Design Sheet No. ?? for details of barrier rail wing extension. Reinforcing bars 6c2, 5c3, 5c4, 5c6 are included in the Barrier Rail quantities.

Note to Detailer:
"PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Abutment Longitudinal Section

Correction 04-14: Changed Note About Barrier Rail Bars 5c3 & 5c14 to Barrier Rail Qty's. Instead of Bridge Deck Qty's.
Revised 10-2026: In View B-B, corrected horizontal maskwall bar mark label 5f4 (was 5f3).
BTSubBridges.dgn - 2104-BTE - Issued 07-08. This Sheet Re-Issued 11-2023. Sheet Format Update.

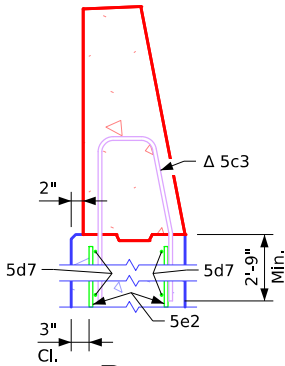


View A-A

Note: For Location of Views A-A & B-B see Design Sheet No. ??

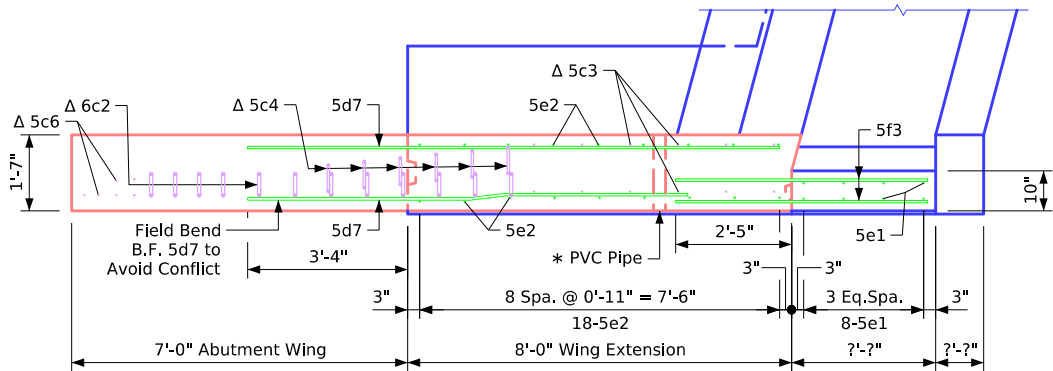
View B-B

* See Part Plan & Longit. Section Sheet for PVC Pipe Location



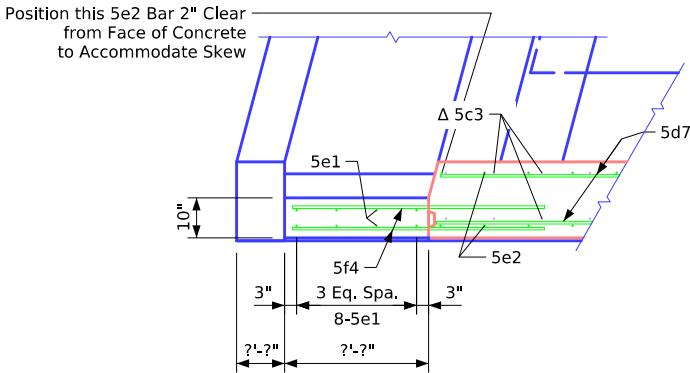
Part Section D-D

Table of Wingwall Elevations			
Location	Elev. G	Elev. H	Elev. I
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?



Section C-C

Note: Barrier Rail not shown



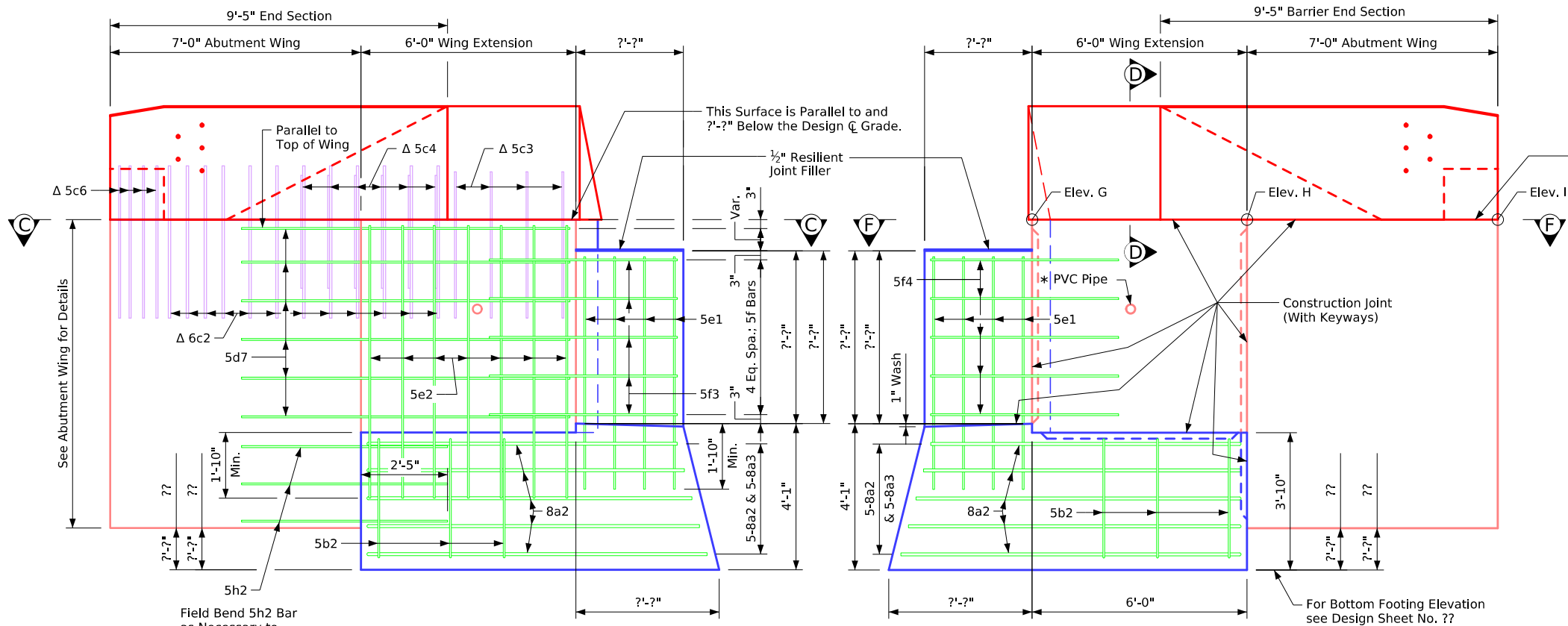
Part Section F-F

Δ Note: See Design Sheet No. ?? for details of barrier rail wing extension. Reinforcing bars 6c2, 5c3, 5c4, 5c6 are included in the Barrier Rail quantities.

Note to Detailer:
"PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Abutment Longitudinal Section

Correction 04-14: Changed Note About Barrier Rail Bars 5c3 & 5c14 to Barrier Rail Qty's. Instead of Bridge Deck Qty's.
Revised 10-2026: In View B-B, corrected horizontal maskwall bar mark label 5f4 (was 5f3).
BTSubBridges.dgn - 2105-BTCD - Issued 07-08. This Sheet Re-issued 11-2023. Sheet Format Update.

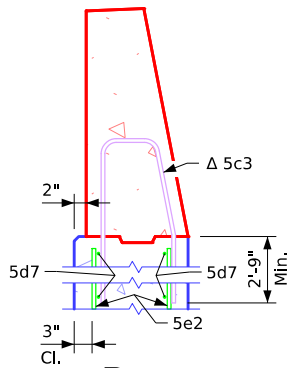


View A-A

Note: For Location of Views A-A & B-B see Design Sheet No. ??

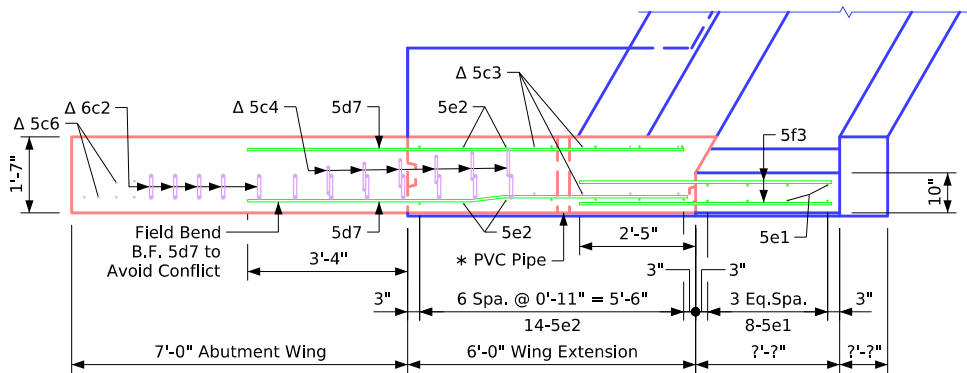
View B-B

* See Part Plan & Longit. Section Sheet for PVC Pipe Location



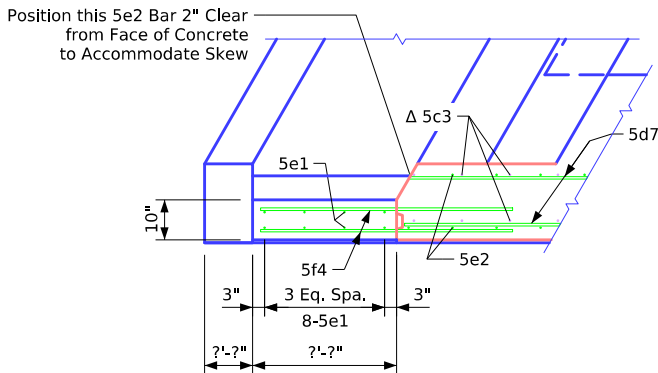
Part Section D-D

Table of Wingwall Elevations			
Location	Elev. G	Elev. H	Elev. I
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?



Section C-C

Note: Barrier Rail not shown



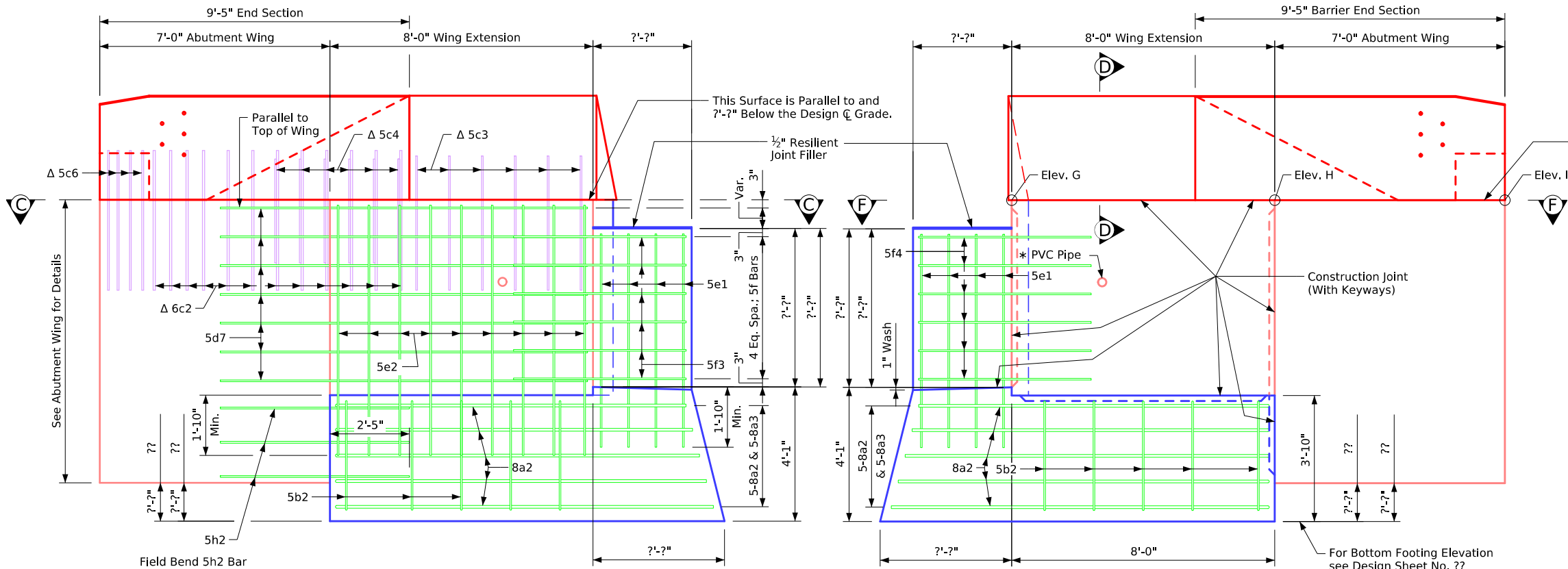
Part Section F-F

Δ Note: See Design Sheet No. ?? for details of barrier rail wing extension. Reinforcing bars 6c2, 5c3, 5c4, 5c6 are included in the Barrier Rail quantities.

Note to Detailer:
"PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Abutment Longitudinal Section

Correction 04-14: Changed Note About Barrier Rail Bars 5c3 & 5c14 to Barrier Rail Qty's. Instead of Bridge Deck Qty's.
Revised 10-2026: In View B-B, corrected horizontal maskwall bar mark label 5f4 (was 5f3).
BTSubBridges.dgn - 2105-BTE - Issued 07-08. This Sheet Re-Issued 11-2023. Sheet Format Update.

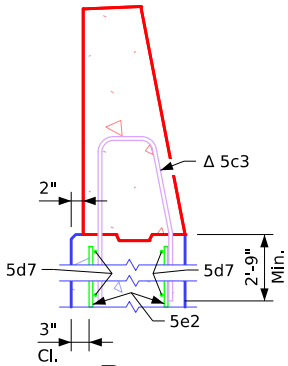


View A-A

Note: For Location of Views A-A & B-B see Design Sheet No. ??

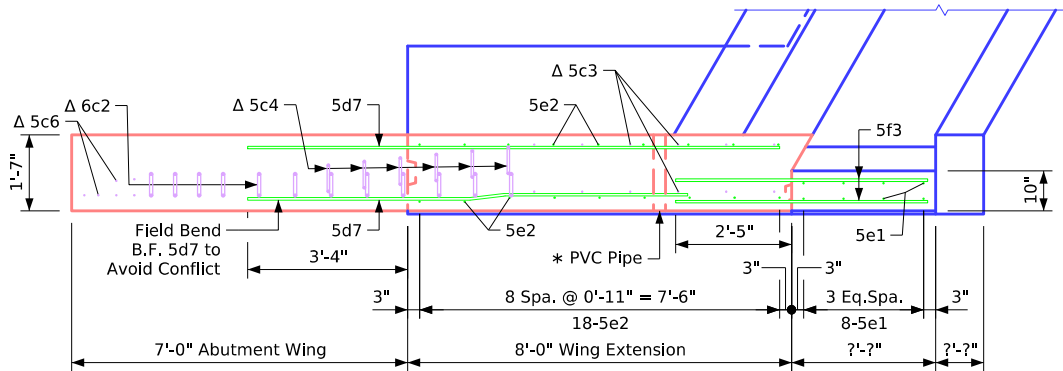
View B-B

* See Part Plan & Longit. Section Sheet for PVC Pipe Location



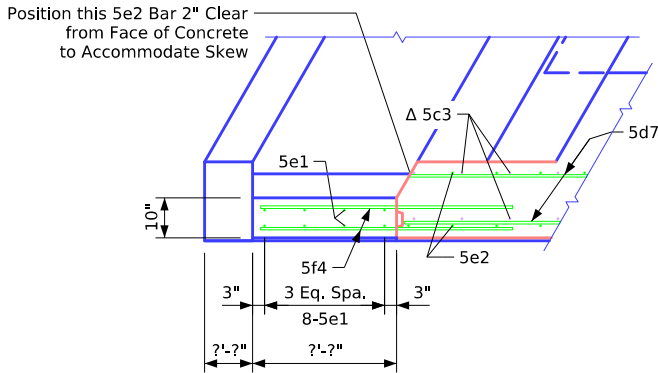
Part Section D-D

Table of Wingwall Elevations			
Location	Elev. G	Elev. H	Elev. I
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?



Section C-C

Note: Barrier Rail not shown



Part Section F-F

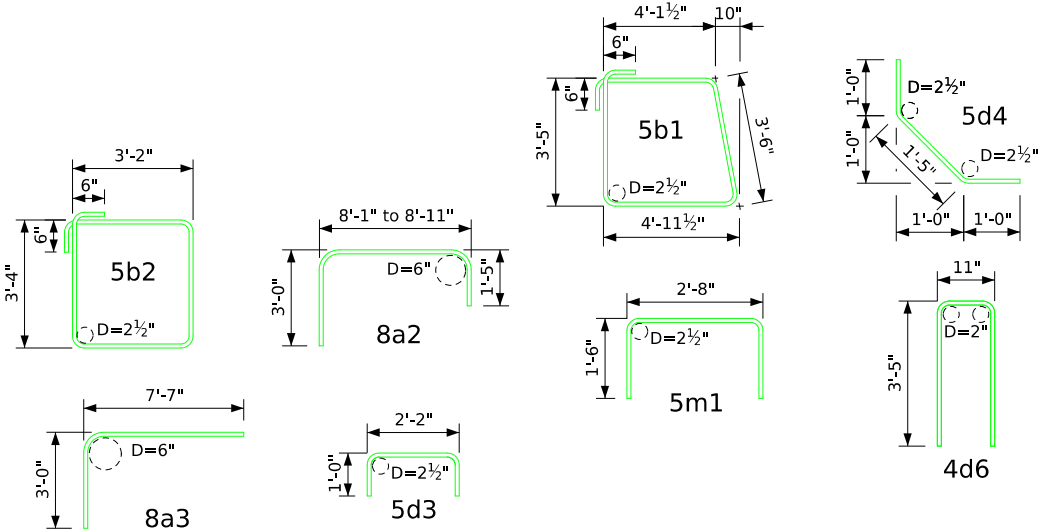
Δ Note: See Design Sheet No. ?? for details of barrier rail wing extension. Reinforcing bars 6c2, 5c3, 5c4, 5c6 are included in the Barrier Rail quantities.

Note to Detailer:
"PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Abutment Longitudinal Section

Revised 07-2014: Changed the 5m1 Horizontal Bar Length to 2'-8" to Accommodate the 3'-0" Transverse Distance of the Beam Steps.
Revised 10-2026: Updated sheet layout.
BTStubBridges.dgn - 2106-BTCD - Issued 07-2008.This Sheet Re-Issued 11-2023. Sheet Format Update.

Bent Bar Details



Note: All dimensions are out to out. D = Pin Diameter

Abutment Notes:

Minimum clear distance from face of concrete to near reinforcing bar is to be 2" unless otherwise noted or shown.
The maskwall is to be poured before the superstructure deck is poured. Construction joint keyways are to be formed with beveled 2x6's.
The portion of the backwall containing the abutment anchorage of the expansion device is to be placed after the bridge deck is placed.
Concrete sealer is to be applied to the abutment bridge seat in accordance with the current Iowa D.O.T. Standard Specifications.
The cost of resilient joint filler material, and cost of furnishing and placing concrete sealer is to be included in the price bid for "Structural Concrete (Bridge)".
Paving notch dowels shall be stainless steel deformed bar Grade 60, meeting the requirements of Construction and Materials I.M. 452.
If necessary to prevent damage to the end of the bridge deck and backwall from construction equipment, an appropriate method of protection approved by the Engineer shall be provided by the Bridge Contractor at no extra cost to the State.

Stainless Steel
Bar List - One Abutment

Bar	Location	Shape	No.	Length	Weight
5d5	Paving Notch Dowels		??	3'-6"	???
Stainless Steel - Total Weight (lbs.)					???

Epoxy Coated Reinforcing Steel
Bar List - One Abutment

Bar	Location	Shape	No.	Length	Weight
8a1	Footing Longitudinal		??	??'-7"	???
8a2	Wing Footing		10	Varies	345
8a3	Wing Footing		10	10'-7"	283
5b1	Footing Hoops		??	17'-0"	???
5b2	Wing Footing Hoops		6	14'-0"	88
6d1	Backwall Vertical B.F.		??	??'-7"	???
5d2	Backwall Vertical F.F.		??	??'-7"	???
5d3	Paving Notch		??	4'-2"	???
5d4	Paving Notch		??	3'-5"	???
4d6	Backwall Vertical Hoop		??	7'-9"	???
5d7	Wing Extension Horizontal		24	9'-2"	230
5e1	Maskwall Vertical		16	??'-7"	???
5e2	Wing Extension Vertical		28	??'-7"	???
5f3	Maskwall Horizontal		20	5'-3"	110
5g1	Backwall Longitudinal		??	??'-7"	???
5g2	Backwall Dowels		28	4'-10"	142
5g3	Paving Notch Longitudinal		??	??'-7"	???
5h2	Wing Extension Horizontal		12	5'-9"	72
5h5	Wing Extension Horizontal		4	4'-0"	17
5h7	Wing Extension Horizontal		6	5'-9"	36
5m1	Beam Step Transverse		??	5'-8"	???
5n1	Beam Step Longitudinal		??	2'-8"	???
Epoxy Coated Reinforcing Steel - Total (lbs.)					???

Concrete Placement Quantities

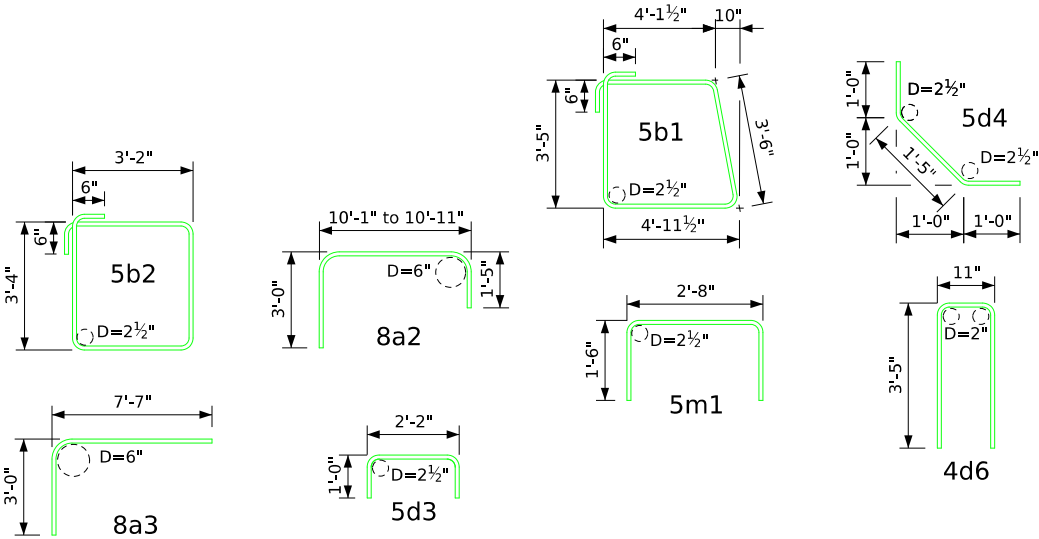
Location	? Abut.	? Abut.
Footing and Steps	???	???
Backwall Below Construction Joint	???	???
Backwall Above Construction Joint	???	???
? Wing Extension	???	???
? Wing Extension	???	???
? Wing Maskwall	???	???
? Wing Maskwall	???	???
Total (cu. yd.)	???	???

Note: Concrete and reinforcing steel quantities are included on the Summary Quantities Sheet.

Abutment Quantities

Revised 07-2014: Changed the 5m1 Horizontal Bar Length to 2'-8" to Accommodate the 3'-0" Transverse Distance of the Beam Steps, Added 2'-0" to the Horizontal Leg of the 8a2 Bars to Accommodate the Full Length of the Wing Extension and Abutment Footing.
Revised 10-2026: Updated sheet layout.
BTSubBridges.dgn - 2106-BTE - Issued 07-2008. This Sheet Re-Issued 11-2023. Sheet Format Update.

Bent Bar Details



Note: All dimensions are out to out. D = Pin Diameter

Abutment Notes:

Minimum clear distance from face of concrete to near reinforcing bar is to be 2" unless otherwise noted or shown.
The maskwall is to be poured before the superstructure deck is poured. Construction joint keyways are to be formed with beveled 2x6's.
The portion of the backwall containing the abutment anchorage of the expansion device is to be placed after the bridge deck is placed.
Concrete sealer is to be applied to the abutment bridge seat in accordance with the current Iowa D.O.T. Standard Specifications.
The cost of resilient joint filler material, and cost of furnishing and placing concrete sealer is to be included in the price bid for "Structural Concrete (Bridge)".
Paving notch dowels shall be stainless steel deformed bar Grade 60, meeting the requirements of Construction and Materials I.M. 452.
If necessary to prevent damage to the end of the bridge deck and backwall from construction equipment, an appropriate method of protection approved by the Engineer shall be provided by the Bridge Contractor at no extra cost to the State.

Stainless Steel
Bar List - One Abutment

Bar	Location	Shape	No.	Length	Weight
5d5	Paving Notch Dowels		??	3'-6"	???
Stainless Steel - Total Weight (lbs.)					???

Epoxy Coated Reinforcing Steel
Bar List - One Abutment

Bar	Location	Shape	No.	Length	Weight
8a1	Footing Longitudinal		??	??'-7"	???
8a2	Wing Footing		10	Varies	398
8a3	Wing Footing		10	12'-7"	336
5b1	Footing Hoops		??	17'-0"	???
5b2	Wing Footing Hoops		10	14'-0"	146
6d1	Backwall Vertical B.F.		??	??'-7"	???
5d2	Backwall Vertical F.F.		??	??'-7"	???
5d3	Paving Notch		??	4'-2"	???
5d4	Paving Notch		??	3'-5"	???
4d6	Backwall Vertical Hoop		??	7'-9"	???
5d7	Wing Extension Horizontal		28	11'-2"	327
5e1	Maskwall Vertical		16	??'-7"	???
5e2	Wing Extension Vertical		36	??'-7"	???
5f3	Maskwall Horizontal		24	5'-3"	132
5g1	Backwall Longitudinal		??	??'-7"	???
5g2	Backwall Dowels		32	4'-10"	162
5g3	Paving Notch Longitudinal		??	??'-7"	???
5h2	Wing Extension Horizontal		12	5'-9"	72
5h5	Wing Extension Horizontal		4	4'-0"	17
5h7	Wing Extension Horizontal		6	5'-9"	36
5m1	Beam Step Transverse		??	5'-8"	???
5n1	Beam Step Longitudinal		??	2'-8"	???
Epoxy Coated Reinforcing Steel - Total (lbs.)					???

Concrete Placement Quantities

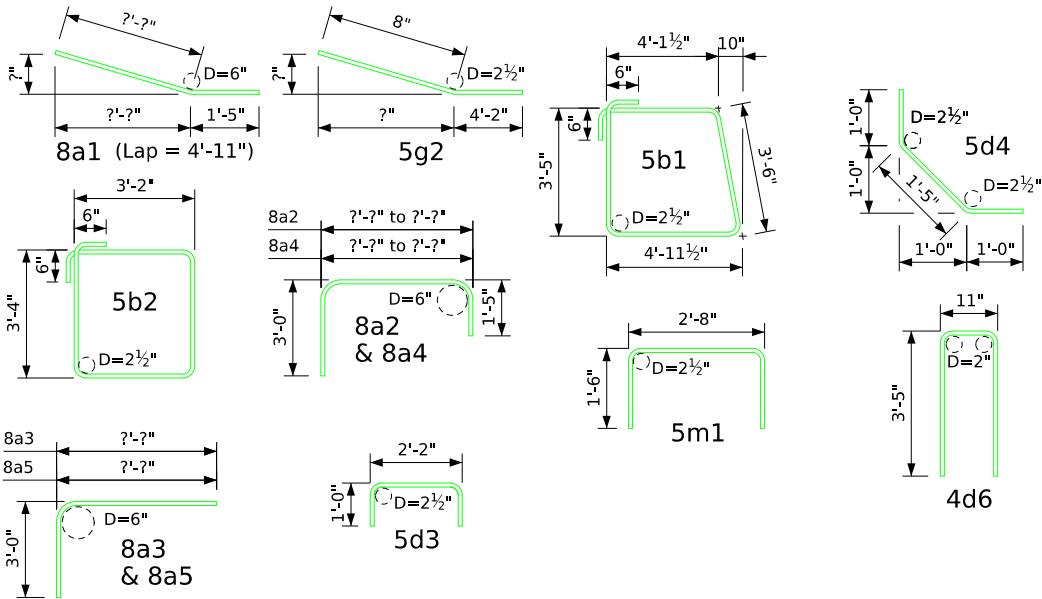
Location	? Abut.	? Abut.
Footing and Steps	??.	??.
Backwall Below Construction Joint	??.	??.
Backwall Above Construction Joint	??.	??.
? Wing Extension	??.	??.
? Wing Extension	??.	??.
? Wing Maskwall	??.	??.
? Wing Maskwall	??.	??.
Total (cu. yd.)	??.	??.

Note: Concrete and reinforcing steel quantities are included on the Summary Quantities Sheet.

Abutment Quantities

Revised 07-2014: Changed the 5m1 Horizontal Bar Length to 2'-8" to Accommodate the 3'-0" Transverse Distance of the Beam Steps.
Revised 10-2026: Updated sheet layout.
BTStubBridges.dgn - 2107-BTCD - Issued 07-2008. This Sheet Re-Issued 11-2023. Bar Lengths Updated. Sheet Format Update.

Bent Bar Details



Note: All dimensions are out to out. D = Pin Diameter

Abutment Notes:

Minimum clear distance from face of concrete to near reinforcing bar is to be 2" unless otherwise noted or shown.
The maskwall is to be poured before the superstructure deck is poured. Construction joint keyways are to be formed with beveled 2x6's.
The portion of the backwall containing the abutment anchorage of the expansion device is to be placed after the bridge deck is placed.
Concrete sealer is to be applied to the abutment bridge seat in accordance with the current Iowa D.O.T. Standard Specifications.
The cost of resilient joint filler material, and cost of furnishing and placing concrete sealer is to be included in the price bid for "Structural Concrete (Bridge)".
Paving notch dowels shall be stainless steel deformed bar Grade 60, meeting the requirements of Construction and Materials I.M. 452.
If necessary to prevent damage to the end of the bridge deck and backwall from construction equipment, an appropriate method of protection approved by the Engineer shall be provided by the Bridge Contractor at no extra cost to the State.

Stainless Steel
Bar List - One Abutment

Bar	Location	Shape	No.	Length	Weight
5d5	Paving Notch Dowels		??	3'-6"	???
Stainless Steel - Total Weight (lbs.)					???

Epoxy Coated Reinforcing Steel
Bar List - One Abutment

Bar	Location	Shape	No.	Length	Weight
8a1	Footing Longitudinal		26	??'-?"	???
8a2	Wing Footing		5	Varies	???
8a3	Wing Footing		5	??'-?"	???
8a4	Wing Footing		5	Varies	???
8a5	Wing Footing		5	??'-?"	???
5b1	Footing Hoops		??	17'-0"	???
5b2	Wing Footing Hoops		6	14'-0"	88
6d1	Backwall Vertical B.F.		??	??'-?"	???
5d2	Backwall Vertical F.F.		??	??'-?"	???
5d3	Paving Notch		??	4'-2"	???
5d4	Paving Notch		??	3'-5"	???
4d6	Backwall Vertical Hoop		??	7'-9"	???
5d7	Wing Extension Horizontal		24	9'-2"	230
5e1	Maskwall Vertical		16	??'-?"	???
5e2	Wing Extension Vertical		28	??'-?"	???
5f3	Maskwall Horizontal		10	??'-?"	???
5f4	Maskwall Horizontal		10	??'-?"	???
5g1	Backwall Longitudinal		??	??'-?"	???
5g2	Backwall Dowels		28	4'-10"	142
5g3	Paving Notch Longitudinal		??	??'-?"	???
5h2	Wing Extension Horizontal		12	5'-9"	72
5h5	Wing Extension Horizontal		4	4'-0"	17
5h7	Wing Extension Horizontal		6	5'-9"	36
5m1	Beam Step Transverse		??	5'-8"	???
5n1	Beam Step Longitudinal		??	2'-8"	???
Epoxy Coated Reinforcing Steel - Total (lbs.)					???

Concrete Placement Quantities

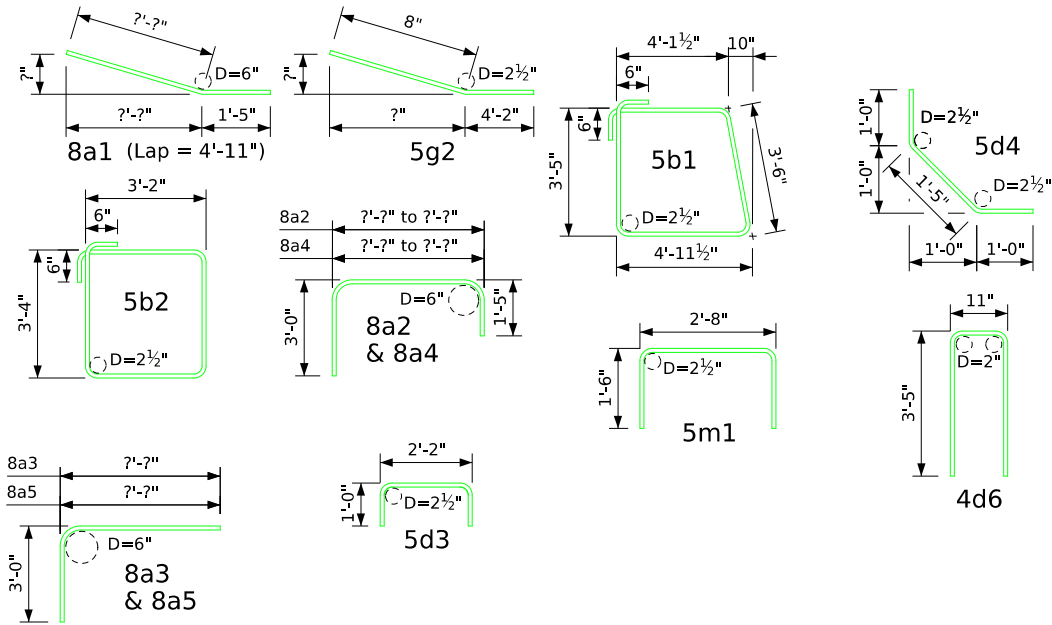
Location	? Abut.	? Abut.
Footing and Steps	??.	??.
Backwall Below Construction Joint	??.	??.
Backwall Above Construction Joint	??.	??.
? Wing Extension	??.	??.
? Wing Extension	??.	??.
? Wing Maskwall	??.	??.
? Wing Maskwall	??.	??.
Total (cu. yd.)	??.	??.

Note: Concrete and reinforcing steel quantities are included on the Summary Quantities Sheet.

Abutment Quantities

Revised 07-2014: Changed the 5m1 Horizontal Bar Length to 2'-8" to Accommodate the 3'-0" Transverse Distance of the Beam Steps.
Revised 10-2026: Updated sheet layout.
BTStubBridges.dgn - 2107-BTE - Issued 07-2008. This Sheet Re-Issued 11-2023. Bar Lengths Updated. Sheet Format Update.

Bent Bar Details



Note: All dimensions are out to out. D = Pin Diameter

Abutment Notes:

Minimum clear distance from face of concrete to near reinforcing bar is to be 2" unless otherwise noted or shown.
The maskwall is to be poured before the superstructure deck is poured. Construction joint keyways are to be formed with beveled 2x6's.
The portion of the backwall containing the abutment anchorage of the expansion device is to be placed after the bridge deck is placed.
Concrete sealer is to be applied to the abutment bridge seat in accordance with the current Iowa D.O.T. Standard Specifications.
The cost of resilient joint filler material, and cost of furnishing and placing concrete sealer is to be included in the price bid for "Structural Concrete (Bridge)".
Paving notch dowels shall be stainless steel deformed bar Grade 60, meeting the requirements of Construction and Materials I.M. 452.
If necessary to prevent damage to the end of the bridge deck and backwall from construction equipment, an appropriate method of protection approved by the Engineer shall be provided by the Bridge Contractor at no extra cost to the State.

Stainless Steel
Bar List - One Abutment

Bar	Location	Shape	No.	Length	Weight
5d5	Paving Notch Dowels		??	3'-6"	???
Stainless Steel - Total Weight (lbs.)					???

Epoxy Coated Reinforcing Steel
Bar List - One Abutment

Bar	Location	Shape	No.	Length	Weight
8a1	Footing Longitudinal		26	??'-7"	???
8a2	Wing Footing		5	Varies	???
8a3	Wing Footing		5	??'-7"	???
8a4	Wing Footing		5	Varies	???
8a5	Wing Footing		5	??'-7"	???
5b1	Footing Hoops		??	17'-0"	???
5b2	Wing Footing Hoops		10	14'-0"	146
6d1	Backwall Vertical B.F.		??	??'-7"	???
5d2	Backwall Vertical F.F.		??	??'-7"	???
5d3	Paving Notch		??	4'-2"	???
5d4	Paving Notch		??	3'-5"	???
4d6	Backwall Vertical Hoop		??	7'-9"	???
5d7	Wing Extension Horizontal		28	11'-2"	327
5e1	Maskwall Vertical		16	??'-7"	???
5e2	Wing Extension Vertical		36	??'-7"	???
5f3	Maskwall Horizontal		12	??'-7"	???
5f4	Maskwall Horizontal		12	??'-7"	???
5g1	Backwall Longitudinal		??	??'-7"	???
5g2	Backwall Dowels		32	4'-10"	162
5g3	Paving Notch Longitudinal		??	??'-7"	???
5h2	Wing Extension Horizontal		12	5'-9"	72
5h5	Wing Extension Horizontal		4	4'-0"	17
5h7	Wing Extension Horizontal		6	5'-9"	36
5m1	Beam Step Transverse		??	5'-8"	???
5n1	Beam Step Longitudinal		??	2'-8"	???
Epoxy Coated Reinforcing Steel - Total (lbs.)					???

Concrete Placement Quantities

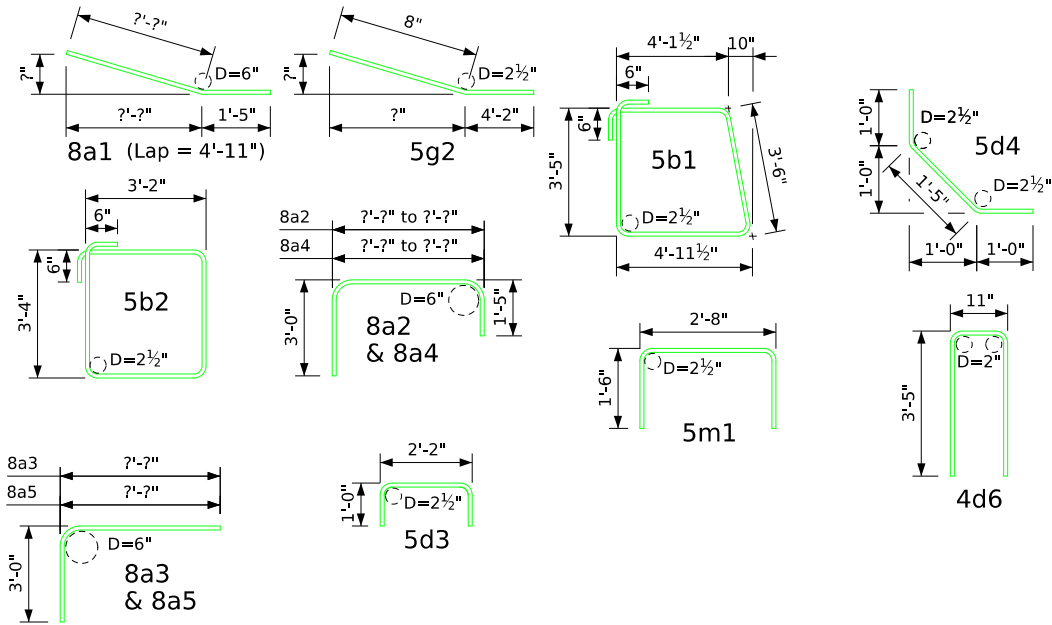
Location	? Abut.	? Abut.
Footing and Steps	??.	??.
Backwall Below Construction Joint	??.	??.
Backwall Above Construction Joint	??.	??.
? Wing Extension	??.	??.
? Wing Extension	??.	??.
? Wing Maskwall	??.	??.
? Wing Maskwall	??.	??.
Total (cu. yd.)	??.	??.

Note: Concrete and reinforcing steel quantities are included on the Summary Quantities Sheet.

Abutment Quantities

Revised 07-2014: Changed the 5m1 Horizontal Bar Length to 2'-8" to Accommodate the 3'-0" Transverse Distance of the Beam Steps.
Revised 10-2026: Updated sheet layout.
BTSubBridges.dgn - 2108-BTCD - Issued 07-2008. This Sheet Re-Issued 11-2023. Bar Lengths Updated. Sheet Format Update.

Bent Bar Details



Note: All dimensions are out to out. D = Pin Diameter

Abutment Notes:

Minimum clear distance from face of concrete to near reinforcing bar is to be 2" unless otherwise noted or shown.
The maskwall is to be poured before the superstructure deck is poured. Construction joint keyways are to be formed with beveled 2x6's.
The portion of the backwall containing the abutment anchorage of the expansion device is to be placed after the bridge deck is placed.
Concrete sealer is to be applied to the abutment bridge seat in accordance with the current Iowa D.O.T. Standard Specifications.
The cost of resilient joint filler material, and cost of furnishing and placing concrete sealer is to be included in the price bid for "Structural Concrete (Bridge)".
Paving notch dowels shall be stainless steel deformed bar Grade 60, meeting the requirements of Construction and Materials I.M. 452.
If necessary to prevent damage to the end of the bridge deck and backwall from construction equipment, an appropriate method of protection approved by the Engineer shall be provided by the Bridge Contractor at no extra cost to the State.

Stainless Steel
Bar List - One Abutment

Bar	Location	Shape	No.	Length	Weight
5d5	Paving Notch Dowels		??	3'-6"	???
Stainless Steel - Total Weight (lbs.)					???

Epoxy Coated Reinforcing Steel
Bar List - One Abutment

Bar	Location	Shape	No.	Length	Weight
8a1	Footing Longitudinal		26	??'-??"	???
8a2	Wing Footing		5	Varies	???
8a3	Wing Footing		5	??'-??"	???
8a4	Wing Footing		5	Varies	???
8a5	Wing Footing		5	??'-??"	???
5b1	Footing Hoops		??	17'-0"	???
5b2	Wing Footing Hoops		6	14'-0"	88
6d1	Backwall Vertical B.F.		??	??'-??"	???
5d2	Backwall Vertical F.F.		??	??'-??"	???
5d3	Paving Notch		??	4'-2"	???
5d4	Paving Notch		??	3'-5"	???
4d6	Backwall Vertical Hoop		??	7'-9"	???
5d7	Wing Extension Horizontal		24	9'-2"	230
5e1	Maskwall Vertical		16	??'-??"	???
5e2	Wing Extension Vertical		28	??'-??"	???
5f3	Maskwall Horizontal		10	??'-??"	???
5f4	Maskwall Horizontal		10	??'-??"	???
5g1	Backwall Longitudinal		??	??'-??"	???
5g2	Backwall Dowels		28	4'-10"	142
5g3	Paving Notch Longitudinal		??	??'-??"	???
5h2	Wing Extension Horizontal		12	5'-9"	72
5h5	Wing Extension Horizontal		4	4'-0"	17
5h7	Wing Extension Horizontal		6	5'-9"	36
5m1	Beam Step Transverse		??	5'-8"	???
5n1	Beam Step Longitudinal		??	2'-8"	???
Epoxy Coated Reinforcing Steel - Total (lbs.)					???

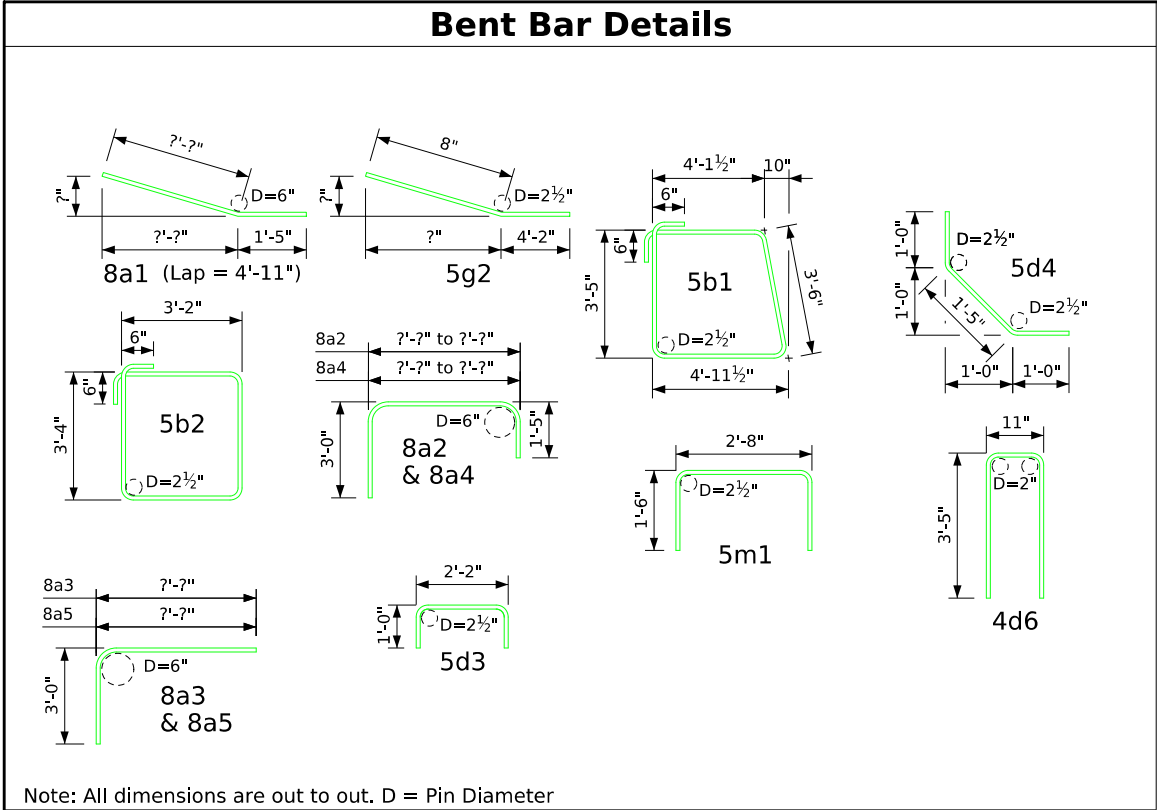
Concrete Placement Quantities

Location	? Abut.	? Abut.
Footing and Steps	??.	??.
Backwall Below Construction Joint	??.	??.
Backwall Above Construction Joint	??.	??.
? Wing Extension	??.	??.
? Wing Extension	??.	??.
? Wing Maskwall	??.	??.
? Wing Maskwall	??.	??.
Total (cu. yd.)	??.	??.

Note: Concrete and reinforcing steel quantities are included on the Summary Quantities Sheet.

Abutment Quantities

Revised 07-2014: Changed the 5m1 Horizontal Bar Length to 2'-8" to Accommodate the 3'-0" Transverse Distance of the Beam Steps.
Revised 10-2026: Updated sheet layout.
BTSTubBridges.dgn - 2108-BTE - Issued 07-2008. This Sheet Re-Issued 11-2023. Bar Lengths Updated. Sheet Format Update.



Stainless Steel Bar List - One Abutment					
Bar	Location	Shape	No.	Length	Weight
5d5	Paving Notch Dowels		??	3'-6"	???
Stainless Steel - Total Weight (lbs.)					???

Epoxy Coated Reinforcing Steel Bar List - One Abutment					
Bar	Location	Shape	No.	Length	Weight
8a1	Footing Longitudinal		26	??'-7"	???
8a2	Wing Footing		5	Varies	???
8a3	Wing Footing		5	??'-7"	???
8a4	Wing Footing		5	Varies	???
8a5	Wing Footing		5	??'-7"	???
5b1	Footing Hoops		??	17'-0"	???
5b2	Wing Footing Hoops		10	14'-0"	146
6d1	Backwall Vertical B.F.		??	??'-7"	???
5d2	Backwall Vertical F.F.		??	??'-7"	???
5d3	Paving Notch		??	4'-2"	???
5d4	Paving Notch		??	3'-5"	???
4d6	Backwall Vertical Hoop		??	7'-9"	???
5d7	Wing Extension Horizontal		28	11'-2"	327
5e1	Maskwall Vertical		16	??'-7"	???
5e2	Wing Extension Vertical		36	??'-7"	???
5f3	Maskwall Horizontal		12	??'-7"	???
5f4	Maskwall Horizontal		12	??'-7"	???
5g1	Backwall Longitudinal		??	??'-7"	???
5g2	Backwall Dowels		32	4'-10"	162
5g3	Paving Notch Longitudinal		??	??'-7"	???
5h2	Wing Extension Horizontal		12	5'-9"	72
5h5	Wing Extension Horizontal		4	4'-0"	17
5h7	Wing Extension Horizontal		6	5'-9"	36
5m1	Beam Step Transverse		??	5'-8"	???
5n1	Beam Step Longitudinal		??	2'-8"	???
Epoxy Coated Reinforcing Steel - Total (lbs.)					???

Abutment Notes:

Minimum clear distance from face of concrete to near reinforcing bar is to be 2" unless otherwise noted or shown.
The maskwall is to be poured before the superstructure deck is poured. Construction joint keyways are to be formed with beveled 2x6's.
The portion of the backwall containing the abutment anchorage of the expansion device is to be placed after the bridge deck is placed.
Concrete sealer is to be applied to the abutment bridge seat in accordance with the current Iowa D.O.T. Standard Specifications.
The cost of resilient joint filler material, and cost of furnishing and placing concrete sealer is to be included in the price bid for "Structural Concrete (Bridge)".
Paving notch dowels shall be stainless steel deformed bar Grade 60, meeting the requirements of Construction and Materials I.M. 452.
If necessary to prevent damage to the end of the bridge deck and backwall from construction equipment, an appropriate method of protection approved by the Engineer shall be provided by the Bridge Contractor at no extra cost to the State.

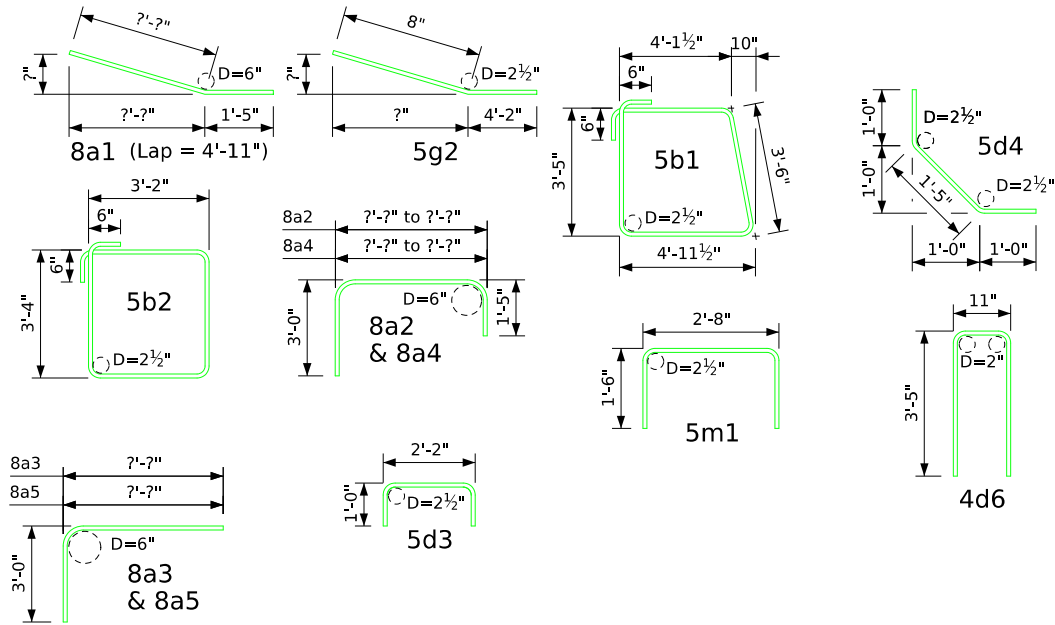
Concrete Placement Quantities		
Location	? Abut.	? Abut.
Footing and Steps	??.	??.
Backwall Below Construction Joint	??.	??.
Backwall Above Construction Joint	??.	??.
? Wing Extension	??.	??.
? Wing Extension	??.	??.
? Wing Maskwall	??.	??.
? Wing Maskwall	??.	??.
Total (cu. yd.)	??.	??.

Note: Concrete and reinforcing steel quantities are included on the Summary Quantities Sheet.

Abutment Quantities

Revised 07-2014: Changed the 5m1 Horizontal Bar Length to 2'-8" to Accommodate the 3'-0" Transverse Distance of the Beam Steps.
Revised 10-2026: Updated sheet layout. Added 8a4, 8a5 and 5f4 to Reinforcing Bar List (they were missing, not listed). Adjusted quantities for 8a2, 8a3 and 5f3 to account for the addition of the missing bars (8a4, 8a5 and 5f4).
BTSubBridges.dgn - 2109-BTCD - Issued 07-2008. This Sheet Re-Issued 11-2023. Bar Lengths Updated. Sheet Format Update.

Bent Bar Details



Note: All dimensions are out to out. D = Pin Diameter

Stainless Steel
Bar List - One Abutment

Bar	Location	Shape	No.	Length	Weight
5d5	Paving Notch Dowels		??	3'-6"	???
Stainless Steel - Total Weight (lbs.)					???

Epoxy Coated Reinforcing Steel
Bar List - One Abutment

Bar	Location	Shape	No.	Length	Weight
8a1	Footing Longitudinal		??	??'-7"	???
8a2	Wing Footing		5	Varies	???
8a3	Wing Footing		5	??'-7"	???
8a4	Wing Footing		5	Varies	???
8a5	Wing Footing		5	??'-7"	???
5b1	Footing Hoops		??	17'-0"	???
5b2	Wing Footing Hoops		6	14'-0"	88
6d1	Backwall Vertical B.F.		??	??'-7"	???
5d2	Backwall Vertical F.F.		??	??'-7"	???
5d3	Paving Notch		??	4'-2"	???
5d4	Paving Notch		??	3'-5"	???
4d6	Backwall Vertical Hoop		??	7'-9"	???
5d7	Wing Extension Horizontal		24	9'-2"	230
5e1	Maskwall Vertical		16	??'-7"	???
5e2	Wing Extension Vertical		36	??'-7"	???
5f3	Maskwall Horizontal		10	??'-7"	???
5f4	Maskwall Horizontal		10	??'-7"	???
5g1	Backwall Longitudinal		??	??'-7"	???
5g2	Backwall Dowels		28	4'-10"	142
5g3	Paving Notch Longitudinal		??	??'-7"	???
5h2	Wing Extension Horizontal		12	5'-9"	72
5h5	Wing Extension Horizontal		4	4'-0"	17
5h7	Wing Extension Horizontal		6	5'-9"	36
5m1	Beam Step Transverse		??	5'-8"	???
5n1	Beam Step Longitudinal		??	2'-8"	???
Epoxy Coated Reinforcing Steel - Total (lbs.)					???

Abutment Notes:

Minimum clear distance from face of concrete to near reinforcing bar is to be 2" unless otherwise noted or shown.
The maskwall is to be poured before the superstructure deck is poured. Construction joint keyways are to be formed with beveled 2x6's.
The portion of the backwall containing the abutment anchorage of the expansion device is to be placed after the bridge deck is placed.
Concrete sealer is to be applied to the abutment bridge seat in accordance with the current Iowa D.O.T. Standard Specifications.
The cost of resilient joint filler material, and cost of furnishing and placing concrete sealer is to be included in the price bid for "Structural Concrete (Bridge)".
Paving notch dowels shall be stainless steel deformed bar Grade 60, meeting the requirements of Construction and Materials I.M. 452.
If necessary to prevent damage to the end of the bridge deck and backwall from construction equipment, an appropriate method of protection approved by the Engineer shall be provided by the Bridge Contractor at no extra cost to the State.

Concrete Placement Quantities

Location	? Abut.	? Abut.
Footing and Steps	???	???
Backwall Below Construction Joint	???	???
Backwall Above Construction Joint	???	???
? Wing Extension	???	???
? Wing Extension	???	???
? Wing Maskwall	???	???
? Wing Maskwall	???	???
Total (cu. yd.)	???	???

Note: Concrete and reinforcing steel quantities are included on the Summary Quantities Sheet.

Abutment Quantities

[illegible]

Abutment Notes:

Minimum clear distance from face of concrete to near reinforcing bar is to be 2" unless otherwise noted or shown.

The maskwall is to be poured before the superstructure deck is poured. Construction joint keyways are to be formed with beveled 2x6's.

The portion of the backwall containing the abutment anchorage of the expansion device is to be placed after the bridge deck is placed.

Concrete sealer is to be applied to the abutment bridge seat in accordance with the current Iowa D.O.T. Standard Specifications.

The cost of resilient joint filler material, and cost of furnishing and placing concrete sealer is to be included in the price bid for "Structural Concrete (Bridge)".

Paving notch dowels shall be stainless steel deformed bar Grade 60, meeting the requirements of Construction and Materials I.M. 452.

If necessary to prevent damage to the end of the bridge deck and backwall from construction equipment, an appropriate method of protection approved by the Engineer shall be provided by the Bridge Contractor at no extra cost to the State.

Bar	Location	Shape	No.	Length	Weight
5d5	Paving Notch Dowels		??	3'-6"	???
Stainless Steel - Total Weight (lbs.)					???

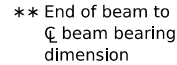
Bar	Location	Shape	No.	Length	Weight
8a1	Footing Longitudinal		26	??'-?"	???
8a2	Wing Footing		5	Varies	???
8a3	Wing Footing		5	??'-?"	???
8a4	Wing Footing		5	Varies	???
8a5	Wing Footing		5	??'-?"	???
5b1	Footing Hoops		??	17'-0"	???
5b2	Wing Footing Hoops		10	14'-0"	146
6d1	Backwall Vertical B.F.		??	??'-?"	???
5d2	Backwall Vertical F.F.		??	??'-?"	???
5d3	Paving Notch		??	4'-2"	???
5d4	Paving Notch		??	3'-5"	???
4d6	Backwall Vertical Hoop		??	7'-9"	???
5d7	Wing Extension Horizontal		28	11'-2"	327
5e1	Maskwall Vertical		16	??'-?"	???
5e2	Wing Extension Vertical		36	??'-?"	???
5f3	Maskwall Horizontal		12	??'-?"	???
5f4	Maskwall Horizontal		12	??'-?"	???
5g1	Backwall Longitudinal		??	??'-?"	???
5g2	Backwall Dowels		32	4'-10"	162
5g3	Paving Notch Longitudinal		??	??'-?"	???
5h2	Wing Extension Horizontal		12	5'-9"	72
5h5	Wing Extension Horizontal		4	4'-0"	17
5h7	Wing Extension Horizontal		6	5'-9"	36
5m1	Beam Step Transverse		??	5'-8"	???
5n1	Beam Step Longitudinal		??	2'-8"	???
Epoxy Coated Reinforcing Steel - Total (lbs.)					???

Location	? Abut.	? Abut.
Footings and Steps	???	???
Backwall Below Construction Joint	???	???
Backwall Above Construction Joint	???	???
? Wing Extension	???	???
? Wing Extension	???	???
? Wing Maskwall	???	???
? Wing Maskwall	???	???
Total (cu. yd.)	???	???

Note: Concrete and reinforcing steel quantities are included on the Summary Quantities Sheet.

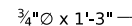
Abutment Quantities

Correction 10-10: Concrete Sealer Article 2403.21,D Changed to Article 2403.03,P,3



Part Longitudinal Section Near Gutter

(For Details of Intermediate Diaphragm see Design Sheet No. ??)



En

Face of Backw

" at 5

1'-9" ← C Abutment Bearing (Vertical

$\frac{3}{4}" \varnothing \times 1'-3"$

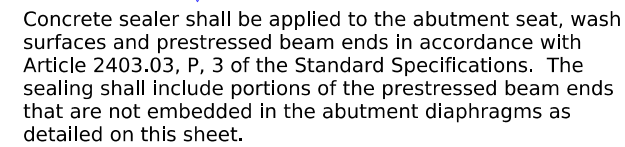
3/4"Ø x 1'-3" —

2'-0"

Free-body diagram of a beam segment of length x . A horizontal force E_1v acts to the left at the right end. A vertical force E_2v acts downwards at the right end. A distributed load w acts downwards along the entire length of the segment.

Part Section

(See Cross Section thru Slab for Number of Diaphragm Hoop Bars Between Beams)



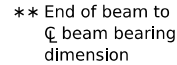
Detail "X"



Part Plan & Longit. Section

FILE NO.	ENGLISH	DESIGN TEAM	Part Plan & Longit. Section - "BTC", "BTD", or "BTE" Beams, Stub Abut., 0° Skew	Standard Sheet 4542-BTCDE	COUNTY	PROJECT NUMBER	SHEET NUMBER	
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Correction 10-10: Concrete Sealer Article 2403.21,D Changed to Article 2403.03,P,3

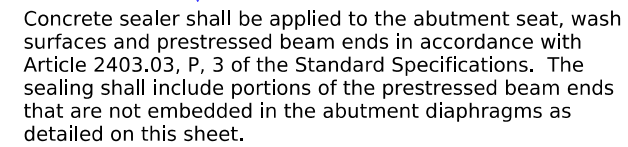


Part Longitudinal Section Near Gutter

(For Details of Intermediate Diaphragm see Design Sheet No. ??)



Part Plan View



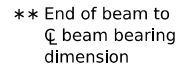
Detail "X"



Part Plan & Longit. Section

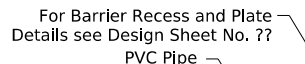
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Correction 10-10: Concrete Sealer Article 2403.21,D Changed to Article 2403.03,P,3



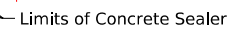
Note: Plug 3"Ø PVC Pipe with expanding foam prior to backfilling behind abutments.

(For Details of Intermediate Diaphragm see Design Sheet No. ??)



Part Section

(See Cross Section thru Slab for Number of Diaphragm Hoop Bars Between Beams)



Concrete sealer shall be applied to the abutment seat, wash surfaces and prestressed beam ends in accordance with Article 2403.03, P, 3 of the Standard Specifications. The sealing shall include portions of the prestressed beam ends that are not embedded in the abutment diaphragms as detailed on this sheet.

Detail "X"

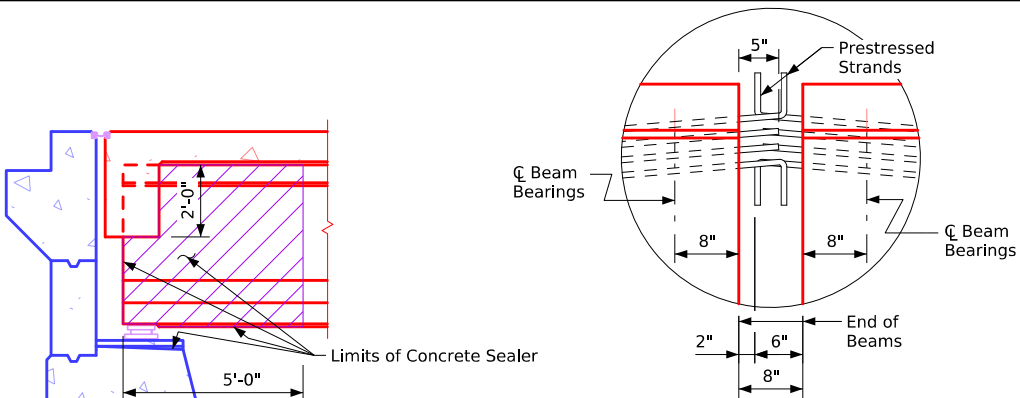


Top of Fixed Pier Details

Part Plan & Longit. Section

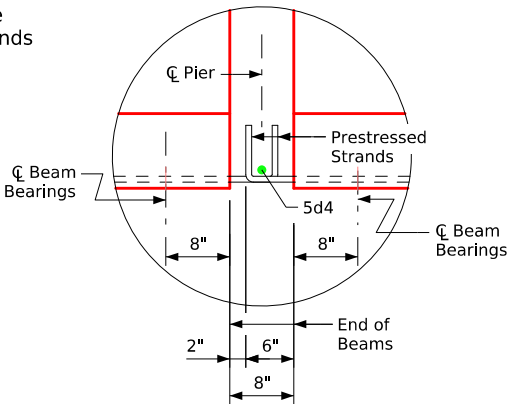
FILE NO.	ENGLISH	DESIGN TEAM	Part Plan & Longit. Section - "BTC", "BTD", or "BTE" Beams, Stub Abut., 7°31' - 15° Skew L.A.	Standard Sheet 4544-BTCDE	COUNTY	PROJECT NUMBER	SHEET NUMBER
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Correction 10-10: Concrete Sealer Article 2403.21,D Changed to Article 2403.03,P,3

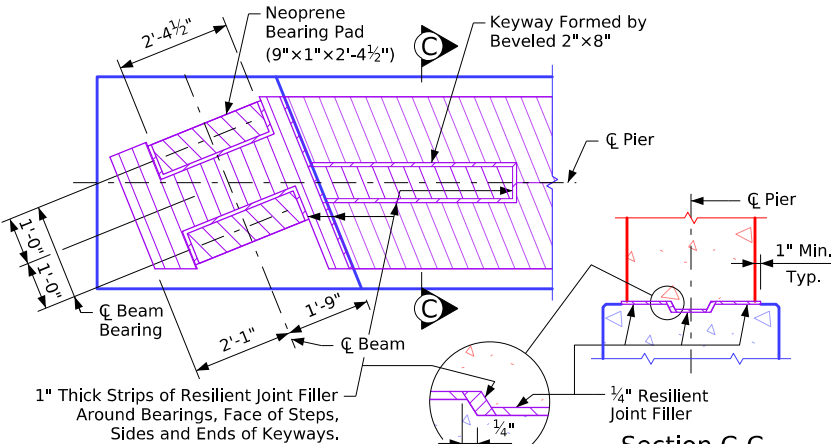


Concrete Sealer Limits for Prestressed Beam

Detail "X"



Detail "A"



Top of Fixed Pier Details

Part Plan View

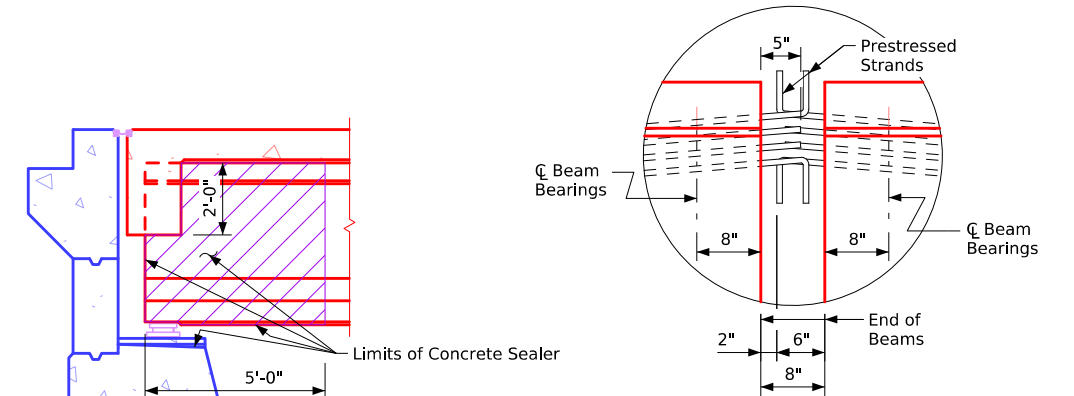
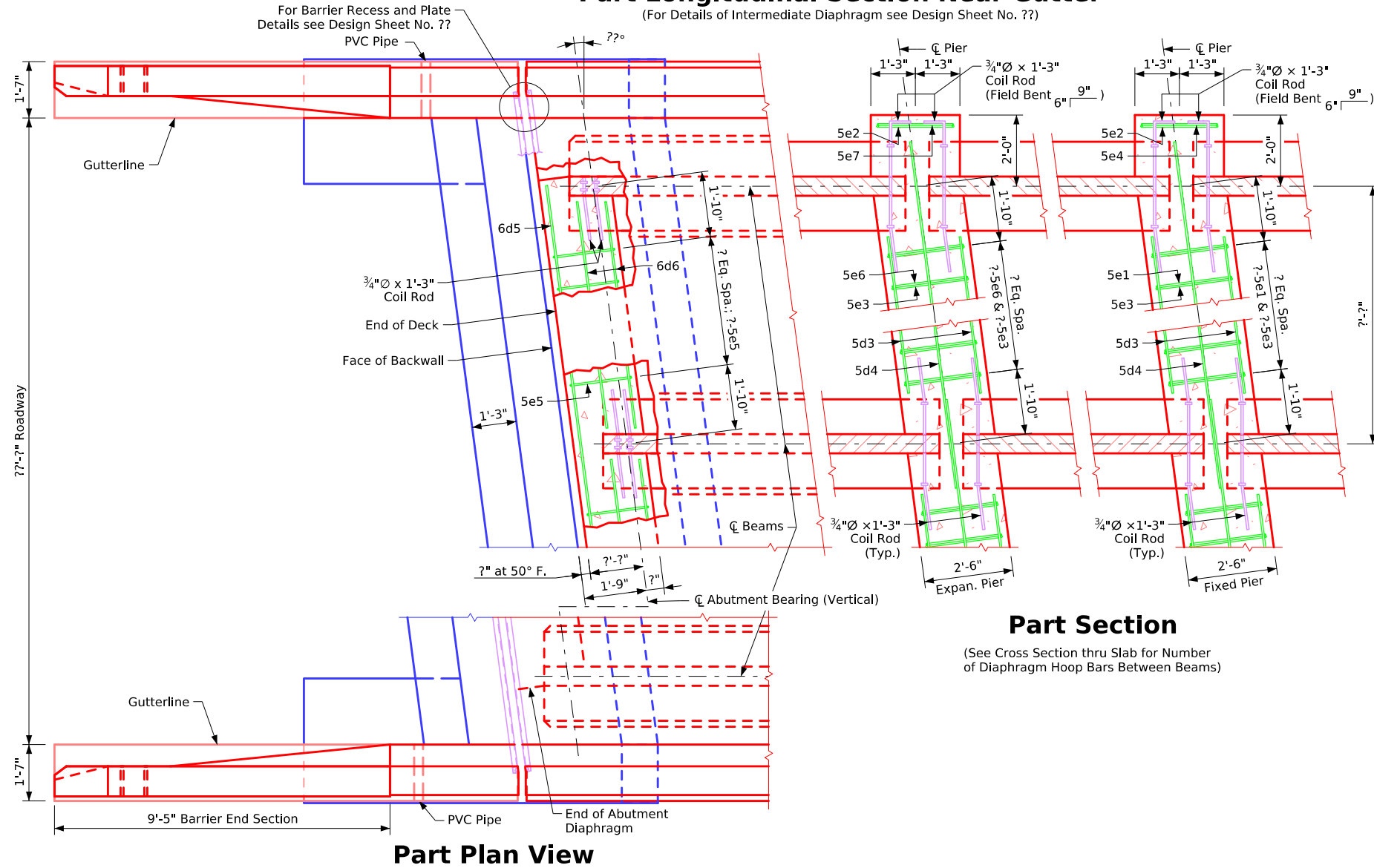
Part Section

(See Cross Section thru Slab for Number of Diaphragm Hoop Bars Between Beams)

Part Plan & Longit. Section

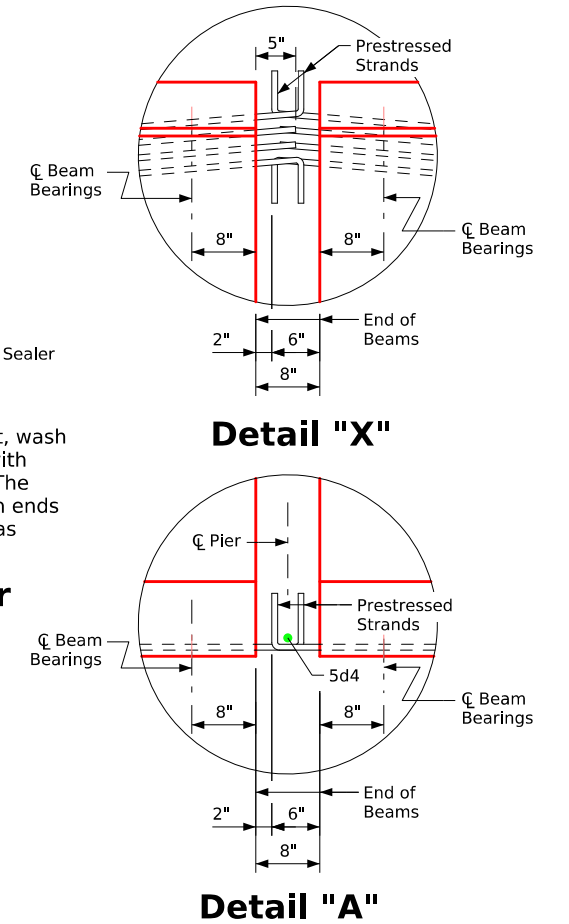
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Correction 10-10: Concrete Sealer Article 2403.21,D Changed to Article 2403.03,P,3

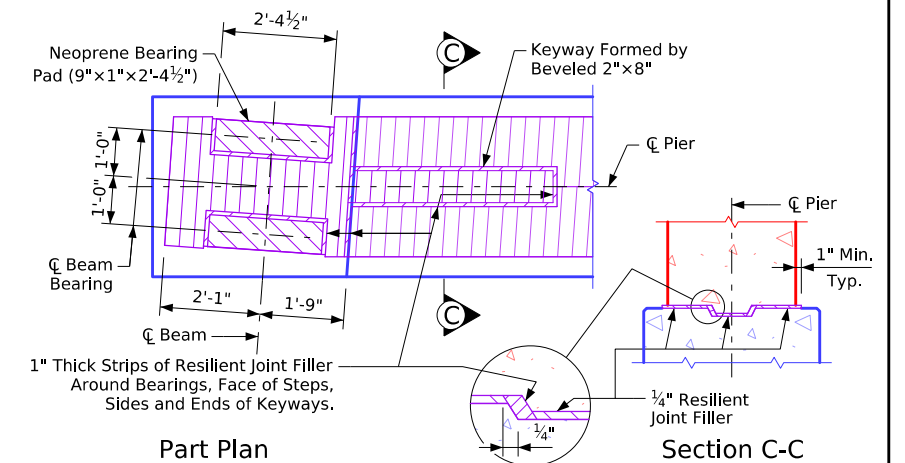


Concrete sealer shall be applied to the abutment seat, wash surfaces and prestressed beam ends in accordance with Article 2403.03, P, 3 of the Standard Specifications. The sealing shall include portions of the prestressed beam ends that are not embedded in the abutment diaphragms as detailed on this sheet.

Concrete Sealer Limits for Prestressed Beam



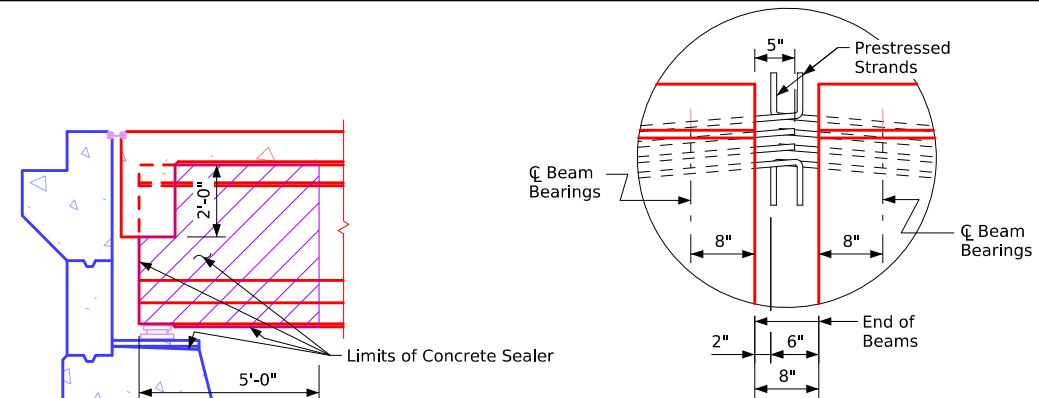
Top of Fixed Pier Details



Part Plan & Longit. Section

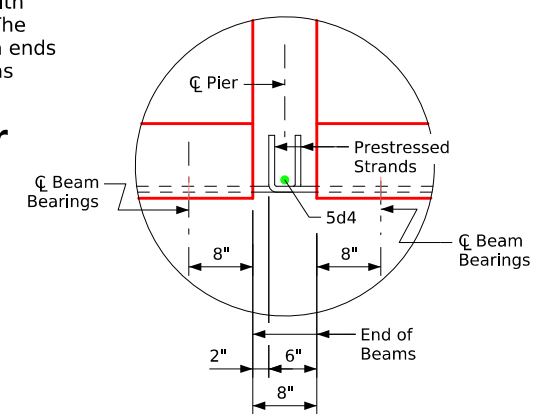
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Correction 10-10: Concrete Sealer Article 2403.21,D Changed to Article 2403.03,P,3



Concrete Sealer Limits for Prestressed Beam

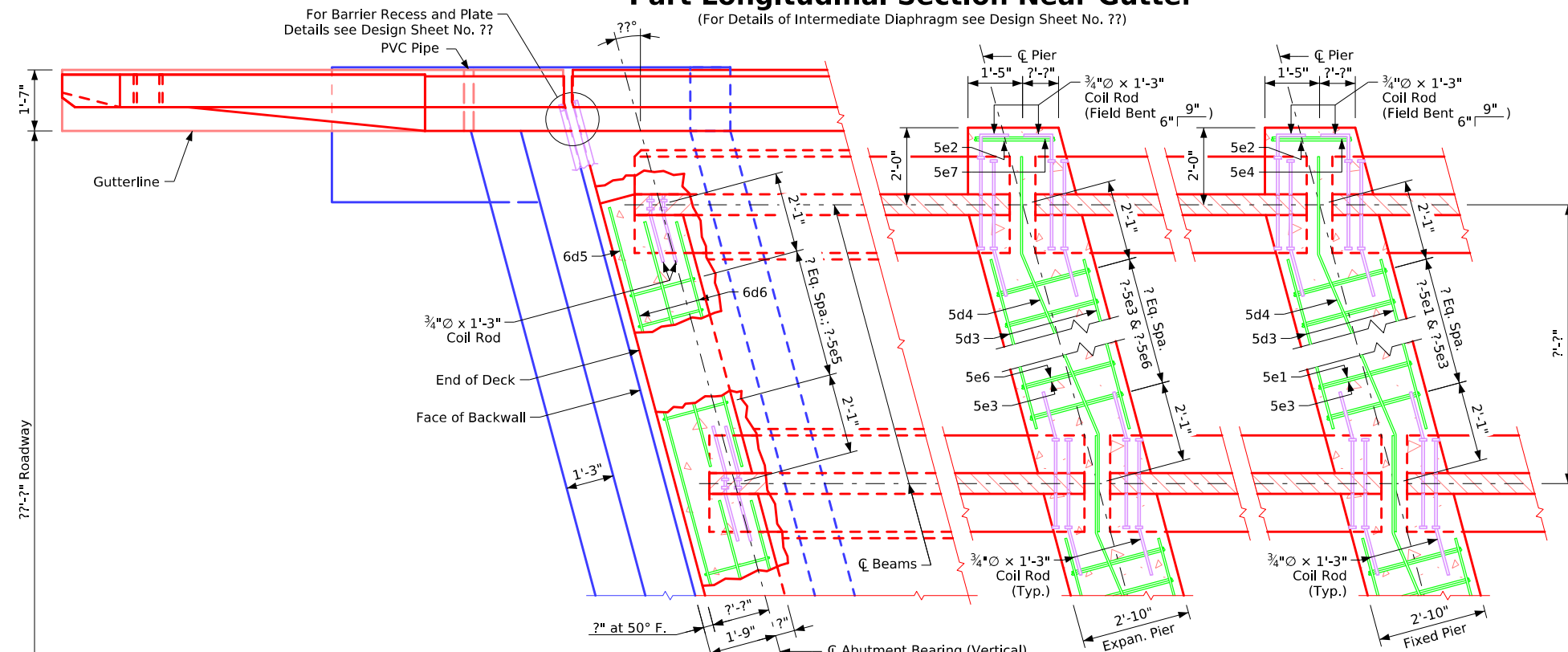
Detail "X"



Detail "A"

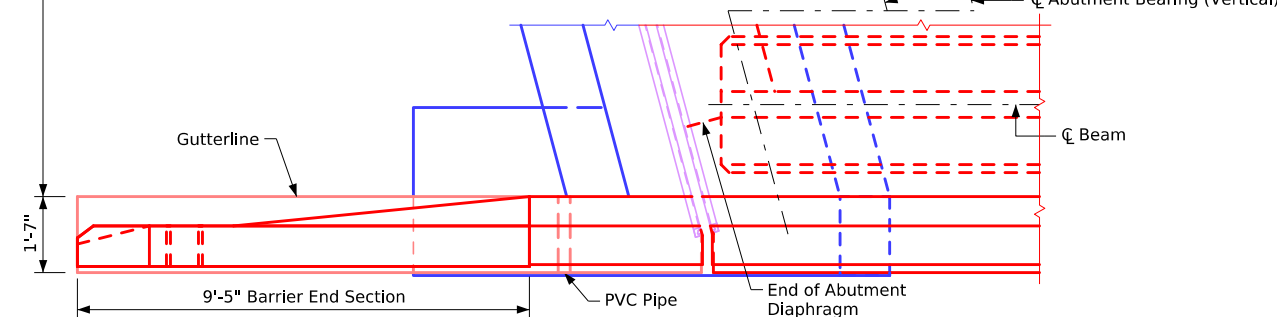
Part Longitudinal Section Near Gutter

(For Details of Intermediate Diaphragm see Design Sheet No. ??)

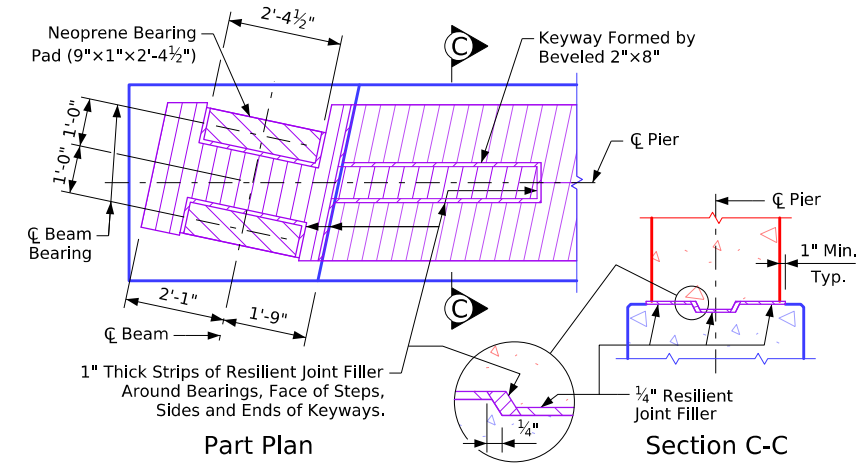


Part Section

(See Cross Section thru Slab for Number of Diaphragm Hoop Bars Between Beams)



Part Plan View

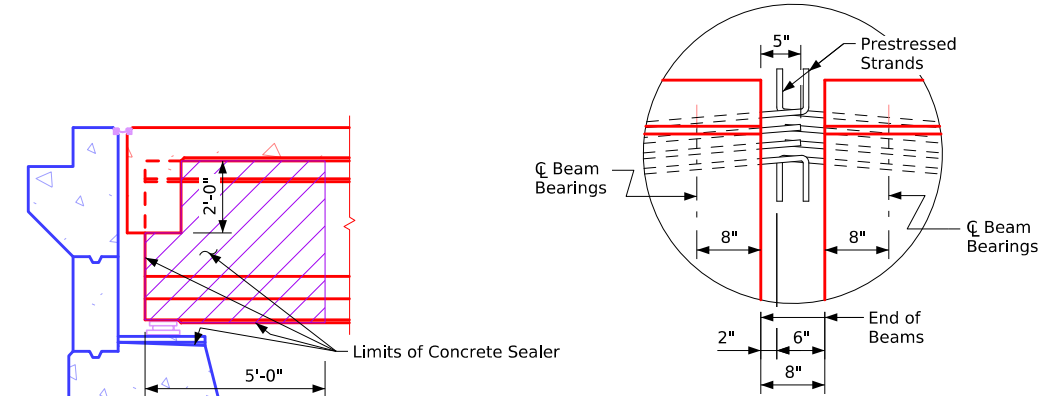
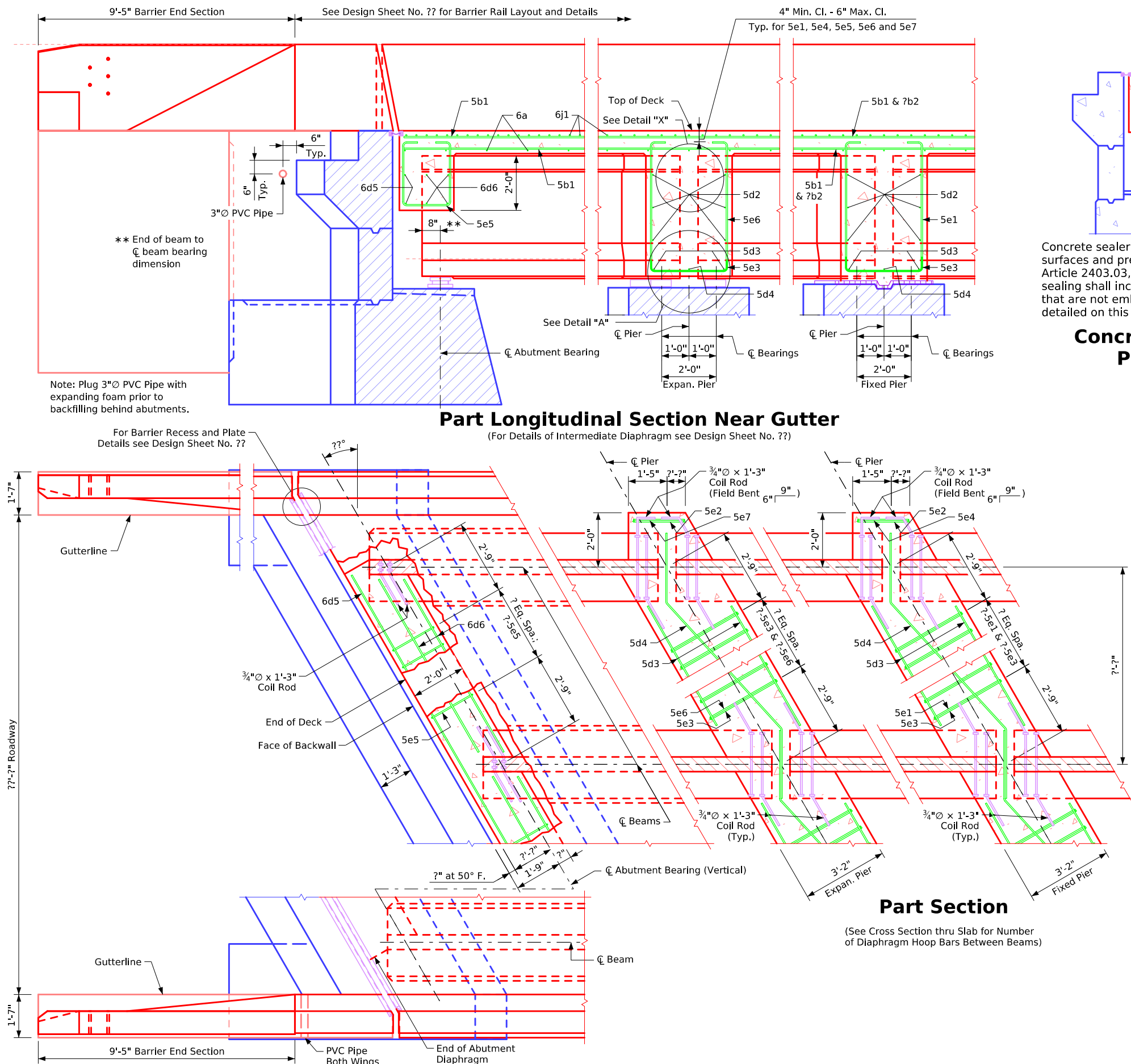


Top of Fixed Pier Details

Part Plan & Longit. Section

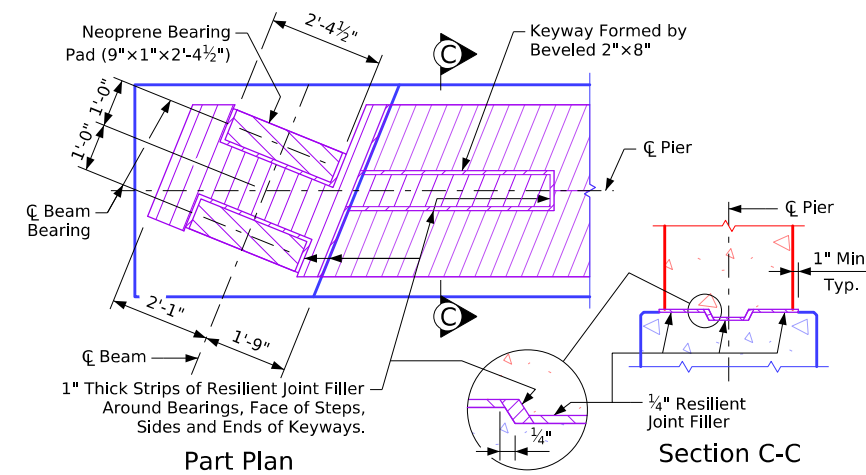
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Correction 10-10: Concrete sealer Article 2403.21.D changed to Article 2403.03.P.3
Revised 10-2026: In "Part Section" of pier details, changed Coil Rod to Field Bent (was labeled Bent). In "Top of Fixed Pier Details", corrected detailing error of missing hatch pattern.
BTSubBridges.dgn - 4548-BTCDE - Issued 07-2008. This Sheet Re-Issued 11-2023. Sheet Format Update.



Concrete sealer shall be applied to the abutment seat, wash surfaces and prestressed beam ends in accordance with Article 2403.03, P, 3 of the Standard Specifications. The sealing shall include portions of the prestressed beam ends that are not embedded in the abutment diaphragms as detailed on this sheet.

Concrete Sealer Limits for Prestressed Beam

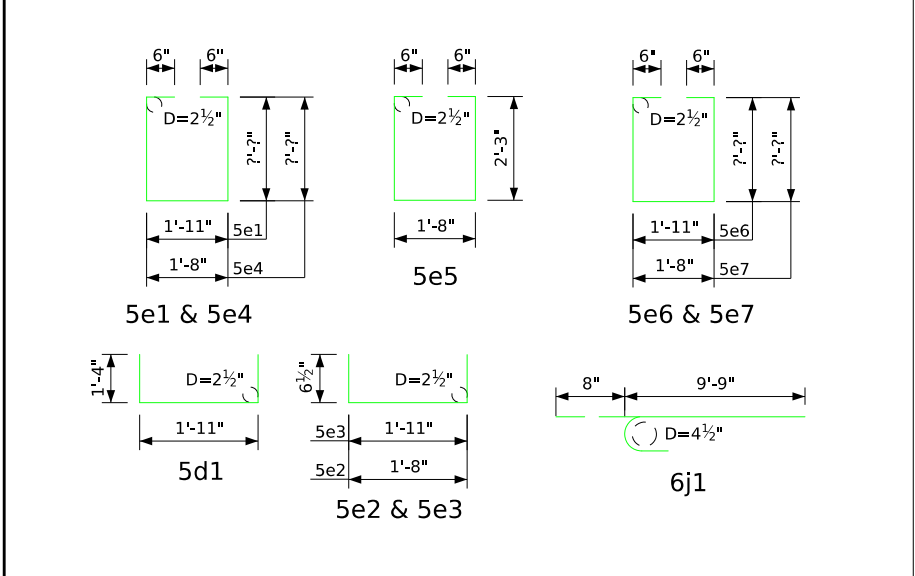


Top of Fixed Pier Details

Part Plan & Longit. Section

FILE NO.	ENGLISH	DESIGN TEAM	Part Plan & Longit. Section - "BTC", "BTD", or "BTE" Beams, Stub Abut., 15°01' - 30° Skew R.A.	Standard Sheet 4548-BTCDE	COUNTY	PROJECT NUMBER	SHEET NUMBER	
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Bent Bar Details	
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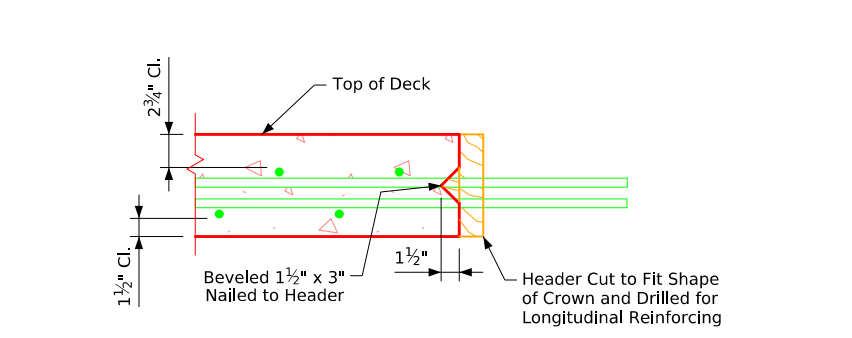


Note: All dimensions are out to out. D = Pin Diameter

Concrete Placement Quantities

Location	Quantity
Section 1, Deck & Abut. Diaph.	???.?
Section 2, Deck	???.?
Section 3, Deck & Abut. Diaph.	???.?
Section 4, Deck & Pier Diaph.	???.?
Section 5, Deck & Pier Diaph.	???.?
Total (cu. yds.)	???.?

Note: Concrete and reinforcing steel quantities are included on the summary quantities sheet.



Permissible Transverse Deck Construction Joint

Concrete Placement Diagram

Note: Concrete deck shall be placed in sections and sequences indicated. (An approved alternate procedure is to place the concrete deck in one continuous pour beginning at one end of the bridge. [or] Placing the concrete deck in one continuous pour is prohibited and will not be considered for approval as an alternate procedure due to [indicate reasons] .) Alternate procedures for placing deck concrete may be submitted for approval together with a statement of the proposed method and evidence that the Contractor possesses the necessary equipment and facilities to accomplish the required results. The Bridge Engineer shall review any alternate procedures. The cost of any additional analysis and plan modifications shall be paid for by the Contractor. The Engineer shall determine if a retarding admixture is required to maintain plasticity of the concrete deck during placement.

Deck concrete sections shall cure for a minimum of 48 hours and shall achieve a minimum strength of 75% of the 28 day deck concrete strength prior to removing deck headers and beginning an adjacent pour.

Note to Designer:
"Refer to BDM commentary for CADD Note E926 to address options regarding continuous deck pours."

Epoxy Coated Reinforcing Steel

Bar	Location	Shape	No.	Length	Weight
6a1	Deck Transv. Top		??	??'-?"	???
6a2	Deck Transv. Bott.		??	??'-?"	???
5b1	Deck Longit. Top & Bott.		??	??'-?"	???
7b2	Deck Longit. Top at Piers		??	??'-?"	???
5d1	Pier Diaph. Ends		??	4'-7"	???
5d2	Pier Diaph. Longit.		??	??'-?"	???
5d3	Pier Diaph. Longit.		??	??'-?"	???
5d4	Pier Diaph. Longit.		??	??'-?"	???
6d5	Abut. Diaph. Longit.		??	??'-?"	???
6d6	Abut. Diaph. Longit.		??	??'-?"	???
5e1	Pier Diaph. Hoops		??	??'-?"	???
5e2	Pier Diaph. Ties Ends		??	2'-9"	???
5e3	Pier Diaph. Ties		??	3'-0"	???
5e4	Pier Diaph. Hoops Ends		??	??'-?"	???
5e5	Abut. Diaph. Hoops		??	7'-5"	???
5e6	Expan. Pier Diaph. Hoops		??	??'-?"	???
5e7	Expan. Pier Diaph. Hoops Ends		??	??'-?"	???
6j1	Deck Transv. Top (at Rail)		??	10'-5"	???
Epoxy Coated Reinforcing Steel – Total (lbs.)					???

Deck, Abut. & Diaph. Quantities

Bent Bar Details

Diagram illustrating bent bar details for reinforcement. The diagram shows three main sections of bent bars, each with dimensions for pin diameter (D), bend radius, and bar length.

Section 1 (Left): Shows two bent bars, 5e1 and 5e4. The pin diameter is $D = 2\frac{1}{2}"$. The bend radius is $2'-2"$. The bar length is $1'-8"$. The bars are labeled 5e1 and 5e4.

Section 2 (Middle): Shows a single bent bar, 5e5. The pin diameter is $D = 2\frac{1}{2}"$. The bend radius is $2'-3"$. The bar length is $1'-8"$. The bar is labeled 5e5.

Section 3 (Right): Shows two bent bars, 5e6 and 5e7. The pin diameter is $D = 2\frac{1}{2}"$. The bend radius is $2'-2"$. The bar length is $1'-8"$. The bars are labeled 5e6 and 5e7.

Section 4 (Bottom Left): Shows two bent bars, 5d1 and 5e2 & 5e3. The pin diameter is $D = 2\frac{1}{2}"$. The bend radius is $2'-2"$. The bar length is $1'-8"$. The bars are labeled 5d1 and 5e2 & 5e3.

Section 5 (Bottom Right): Shows a bent bar, 6j1. The pin diameter is $D = 4\frac{1}{2}"$. The bend radius is $2'-2"$. The bar length is $1'-8"$. The bar is labeled 6j1.

Note: All dimensions are out to out. D = Pin Diameter

Concrete Placement Quantities	
Location	Quantity
Section 1, Deck & Abut. Diaph.	???
Section 2, Deck	???
Section 3, Deck & Abut. Diaph.	???
Section 4, Deck & Pier Diaph.	???
Section 5, Deck & Pier Diaph.	???
Total (cu. yds.)	???.



Epoxy Coated Reinforcing Steel Bar List - Bridge Deck					
Bar	Location	Shape	No.	Length	Weight
6a1	Deck Transv. Top		??	??'-?"	???
6a2	Deck Transv. Bott.		??	??'-?"	???
5b1	Deck Longit. Top & Bott.		??	??'-?"	???
?b2	Deck Longit. Top at Piers		??	??'-?"	???
5d1	Pier Diaph. Ends		??	4'-10"	???
5d2	Pier Diaph. Longit.		??	??'-?"	???
5d3	Pier Diaph. Longit.		??	??'-?"	???
5d4	Pier Diaph. Longit.		??	??'-?"	???
6d5	Abut. Diaph. Longit.		??	??'-?"	???
6d6	Abut. Diaph. Longit.		??	??'-?"	???
5e1	Pier Diaph. Hoops		??	??'-?"	???
5e2	Pier Diaph. Ties Ends		??	2'-9"	???
5e3	Pier Diaph. Ties		??	3'-3"	???
5e4	Pier Diaph. Hoops Ends		??	??'-?"	???
5e5	Abut. Diaph. Hoops		??	7'-2"	???
5e6	Expan. Pier Diaph. Hoops		??	??'-?"	???
5e7	Expan. Pier Diaph. Hoops Ends		??	??'-?"	???
6j1	Deck Transv. Top (at Rail)		??	10'-5"	???
Epoxy Coated Reinforcing Steel – Total (lbs.)					???

Note: Concrete deck shall be placed in sections and sequences indicated. (An approved alternate procedure is to place the concrete deck in one continuous pour beginning at one end of the bridge. [or] Placing the concrete deck in one continuous pour is prohibited and will not be considered for approval as an alternate procedure due to [indicate reasons] .) Alternate procedures for placing deck concrete may be submitted for approval together with a statement of the proposed method and evidence that the Contractor possesses the necessary equipment and facilities to accomplish the required results. The Bridge Engineer shall review any alternate procedures. The cost of any additional analysis and plan modifications shall be paid for by the Contractor. The Engineer shall determine if a retarding admixture is required to maintain plasticity of the concrete deck during placement.

Note to Designer:
"Refer to BDM commentary for CADD Note E926 to address options regarding continuous deck pours."

Deck, Abut. & Diaph. Quantities

Bent Bar Details

Diagram illustrating Bent Bar Details for reinforcement. The diagrams show various bent bar configurations with dimensions in inches.

5e1 & 5e4: Shows a bent bar with a pin diameter $D = 2\frac{1}{2}"$. The vertical dimension is $2' - 6"$. The horizontal dimension is $2' - 6"$. The bend radius is $2' - 7"$. The bar is labeled 5e1 and 5e4.

5e5: Shows a bent bar with a pin diameter $D = 2\frac{1}{2}"$. The vertical dimension is $2' - 3"$. The horizontal dimension is $2' - 7"$. The bar is labeled 5e5.

5e6 & 5e7: Shows a bent bar with a pin diameter $D = 2\frac{1}{2}"$. The vertical dimension is $2' - 6"$. The horizontal dimension is $2' - 6"$. The bend radius is $2' - 7"$. The bar is labeled 5e6 and 5e7.

5d1: Shows a bent bar with a pin diameter $D = 2\frac{1}{2}"$. The vertical dimension is $1' - 4"$. The horizontal dimension is $2' - 7"$. The bar is labeled 5d1.

5e2 & 5e3: Shows a bent bar with a pin diameter $D = 2\frac{1}{2}"$. The vertical dimension is $6\frac{1}{2}"$. The horizontal dimension is $2' - 6"$. The bend radius is $2' - 7"$. The bar is labeled 5e2 and 5e3.

5d4: Shows a bent bar with a pin diameter $D = 2\frac{1}{2}"$. The vertical dimension is $2' - 7"$. The horizontal dimension is $2' - 6"$. The bend radius is $2' - 7"$. The bar is labeled 5d4.

6j1: Shows a bent bar with a pin diameter $D = 4\frac{1}{2}"$. The vertical dimension is $8"$. The horizontal dimension is $9' - 9"$. The bar is labeled 6j1.

Note: All dimensions are out to out. D = Pin Diameter

Concrete Placement Quantities	
Location	Quantity
Section 1, Deck & Abut. Diaph.	???.?
Section 2, Deck	???.?
Section 3, Deck & Abut. Diaph.	???.?
Section 4, Deck & Pier Diaph.	???.?
Section 5, Deck & Pier Diaph.	???.?
Total (cu. yds.)	???.?

Note: Concrete and reinforcing steel quantities are included on the summary quantities sheet.

Epoxy Coated Reinforcing Steel Bar List - Bridge Deck					
Bar	Location	Shape	No.	Length	Weight
6a1	Deck Transv. Top		??	??'-?"	???
6a2	Deck Transv. Bott.		??	??'-?"	???
6a3	Slab Transv. Top Ends		??	??'-?"	???
6a4	Slab Transv. Bott. Ends		??	??'-?"	???
5b1	Deck Longit. Top & Bott.		??	??'-?"	???
?b2	Deck Longit. Top at Piers		??	??'-?"	???
5d1	Pier Diaph. Ends		??	??'-?"	???
5d2	Pier Diaph. Longit.		??	??'-?"	???
5d3	Pier Diaph. Longit.		??	??'-?"	???
5d4	Pier Diaph. Longit.		??	??'-?"	???
6d5	Abut. Diaph. Longit.		??	??'-?"	???
6d6	Abut. Diaph. Longit.		??	??'-?"	???
5e1	Pier Diaph. Hoops		??	??'-?"	???
5e2	Pier Diaph. Ties Ends		??	??'-?"	???
5e3	Pier Diaph. Ties		??	3'-?"	???
5e4	Pier Diaph. Hoops Ends		??	??'-?"	???
5e5	Abut. Diaph. Hoops		??	7'-?"	???
5e6	Expan. Pier Diaph. Hoops		??	??'-?"	???
5e7	Expan. Pier Diaph. Hoops Ends		??	??'-?"	???
6j1	Deck Transv. Top (at Rail)		??	10'-?"	???
Epoxy Coated Reinforcing Steel – Total (lbs.)					???

Concrete Placement Diagram

Deck concrete sections shall cure for a minimum of 48 hours and shall achieve a minimum strength of 75% of the 28 day deck concrete strength prior to removing deck headers and beginning an adjacent pour.

Note to Designer:
"Refer to BDM commentary for CADD Note E926 to
address options regarding continuous deck pours."

Deck, Abut. & Diaph. Quantities

Bent Bar Details

The image displays ten technical drawings of bent bar details, each with specific dimensions and labels. The drawings are arranged in two rows. The top row shows details for bars 5e1 & 5e4, 5e5, 5e6 & 5e7, and 6j1. The bottom row shows details for bars 5d1, 5e2 & 5e3, and 5d4. Each drawing includes dimensions for bar width, height, bend radius, and bend angle. The drawings are labeled with their respective bar numbers and dimensions.

5e1 & 5e4

5e5

5e6 & 5e7

5d1

5e2 & 5e3

5d4

6j1

Note: All dimensions are out to out. D = Pin Diameter

Concrete Placement Quantities	
Location	Quantity
Section 1, Deck & Abut. Diaph.	???.?
Section 2, Deck	???.?
Section 3, Deck & Abut. Diaph.	???.?
Section 4, Deck & Pier Diaph.	???.?
Section 5, Deck & Pier Diaph.	???.?
Total (cu. yds.)	???.?

Epoxy Coated Reinforcing Steel Bar List - Bridge Deck					
Bar	Location	Shape	No.	Length	Weight
6a1	Deck Transv. Top		??	??'-?"	???
6a2	Deck Transv. Bott.		??	??'-?"	???
6a3	Slab Transv. Top Ends		??	??'-?"	???
6a4	Slab Transv. Bott. Ends		??	??'-?"	???
5b1	Deck Longit. Top & Bott.		??	??'-?"	???
7b2	Deck Longit. Top at Piers		??	??'-?"	???
5d1	Pier Diaph. Ends		??	??'-?"	???
5d2	Pier Diaph. Longit.		??	??'-?"	???
5d3	Pier Diaph. Longit.		??	??'-?"	???
5d4	Pier Diaph. Longit.		??	??'-?"	???
6d5	Abut. Diaph. Longit.		??	??'-?"	???
6d6	Abut. Diaph. Longit.		??	??'-?"	???
5e1	Pier Diaph. Hoops		??	??'-?"	???
5e2	Pier Diaph. Ties Ends		??	??'-?"	???
5e3	Pier Diaph. Ties		??	3'-?"	???
5e4	Pier Diaph. Hoops Ends		??	??'-?"	???
5e5	Abut. Diaph. Hoops		??	?'-2"	???
5e6	Expan. Pier Diaph. Hoops		??	??'-?"	???
5e7	Expan. Pier Diaph. Hoops Ends		??	??'-?"	???
6j1	Deck Transv. Top (at Rail)		??	10'-5"	???
Epoxy Coated Reinforcing Steel – Total (lbs.)					???

Note to Designer:
"Refer to BDM commentary for CADD Note E926 to
address options regarding continuous deck pours."

Deck, Abut. & Diaph. Quantities

Correction 04-14: Added Referral Note to Summary Quantities Sheet for the Drain Weight. Note About Choice of Epoxy or Stainless Steel Deck to Barrier Rail Bars.
Revised 10-2026: In "Half Section Near Fixed Pier" and "Part Section Near Expansion Pier" details, changed Coil Rod to Field Bent (was labeled Bent).
BTSubBridges.dgn - 4556-BTC-4 - Issued 07-2008. This Sheet Re-Issued 11-2023. Sheet Format Update.

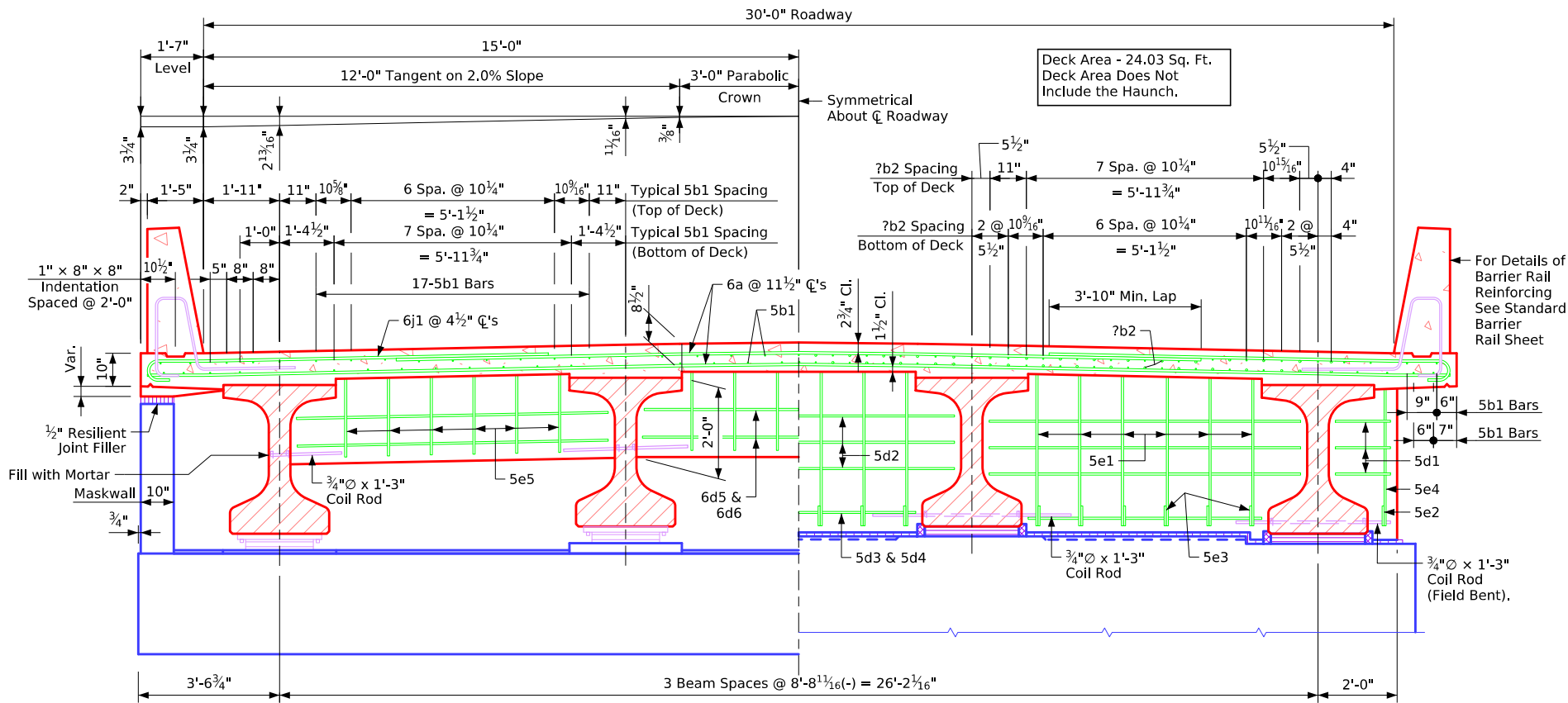
Table of Size of "b2" Bar

Longest Adjacent Span	BTC Beam Bar Size
30'-0"	** 4
35'-0"	** 4
40'-0"	** 4
45'-0"	** 4
50'-0"	** 4
55'-0"	** 4
60'-0"	** 6
65'-0"	** 7
70'-0"	** 7
75'-0"	** 8
80'-0"	** 9
85'-0"	** 9
90'-0"	7
95'-0"	7
100'-0"	8
105'-0"	8
110'-0"	8
115'-0"	8
120'-0"	8
125'-0"	-----
130'-0"	-----
135'-0"	-----
140'-0"	-----
145'-0"	-----
150'-0"	-----
155'-0"	-----

The midpoint of the "b2" bar is to be placed at the C of pier.

** Indicates "b2" bar placed in top deck only.

Note to Designer:
6j1 Spacing Shown for TL-4 Barrier. See Design Manual Section 5.2 for TL-5 6j1 spacing.



Half Section Near Abutment

Half Section Near Fixed Pier

Note: For Details of Intermediate Diaphragms See Design Sheet No. ??.

Note to Detailer:
"PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Superstructure Notes:

The bridge deck as shown includes 3/4" integral wearing surface. The pier and abutment diaphragm concrete is to be placed monolithically with the bridge deck.

Cost of all resilient joint filler material is to be included in the price bid for "Structural Concrete (Bridge)".

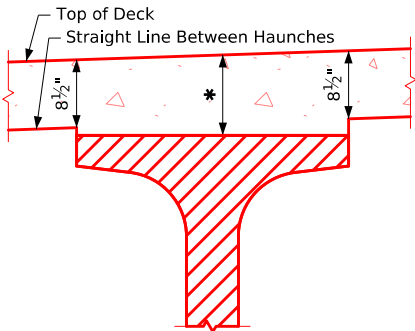
All beams are to be set vertical.

Forms for the deck and barrier rail are to be supported by the prestressed concrete beams.

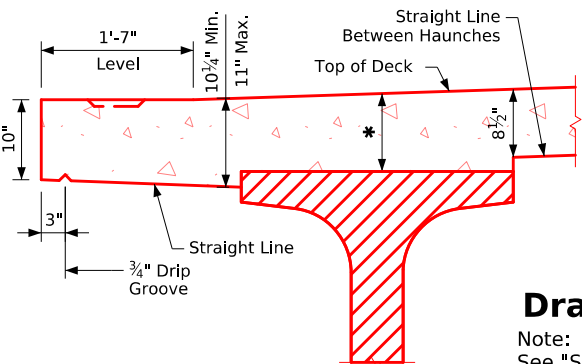
Clear distance from face of concrete to near reinforcing bar shall be 2" unless otherwise noted or shown.

All deck and diaphragm reinforcing is to be wired in place and adequately supported before concrete is placed.

Top transverse reinforcing steel is to be parallel to and 2 3/4" clear below top of deck. Bottom transverse reinforcing steel is to be parallel to and 1 1/2" clear above bottom of the deck. Top and bottom reinforcing steel is to be supported by individual bar chairs spaced at not more than 3'-0" centers longitudinally and transversely, or by continuous rows of bar high chairs or deck bolsters spaced 4'-0" apart. I.M. 451.01 requirements shall apply for bar chairs, bar high chairs, and deck bolsters.



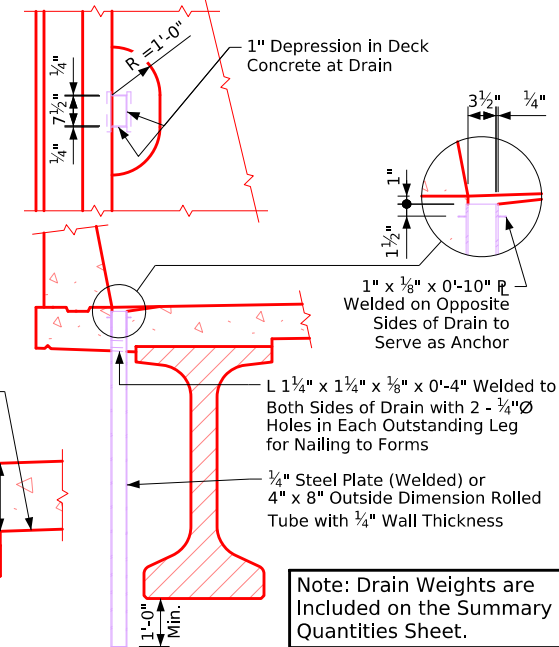
Interior Beams



Exterior Beams

Typical Deck and Haunch Detail

* For Deck Thickness Over Beams See "Haunch And Camber Details" on Design Sheet No. ??.

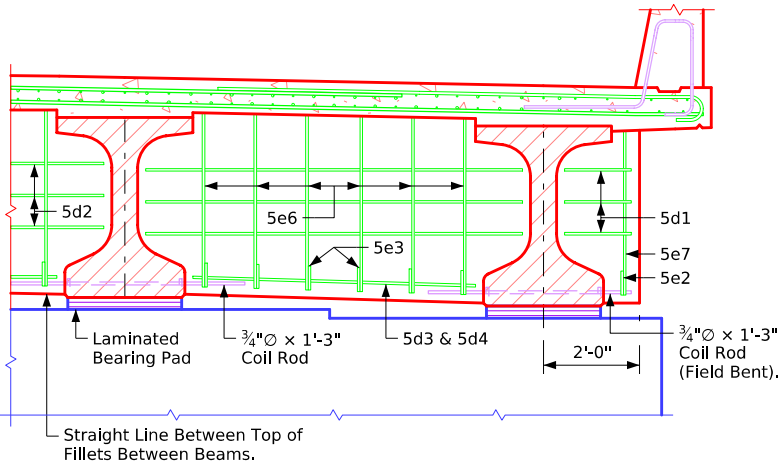


Drain Details

Note: Drains are to be galvanized. ?? Drains required. See "Situation Plan" on Design Sheet No. ?? for location. Weight of drains is included in the quantity for "Structural Steel". Weight is based on rolled tube.

Data for One Drain

Beam Size	BTC
Drain Weight (lbs.)	106
Drain Length (ft.)	5'-6 3/4"



Part Section Near Expansion Pier

BTC 4 Beams - Stub Abut.

Correction 04-14: Added Referral Note to Summary Quantities Sheet for the Drain Weight. Note About Choice of Epoxy or Stainless Steel Deck to Barrier Rail Bars.
Revised 10-2026: In "Half Section Near Fixed Pier" and "Part Section Near Expansion Pier" details, changed Coil Rod to Field Bent (was labeled Bent).
BTSubBridges.dgn - 4556-BTD-4 - Issued 07-2008. This Sheet Re-Issued 11-2023. Sheet Format Update.

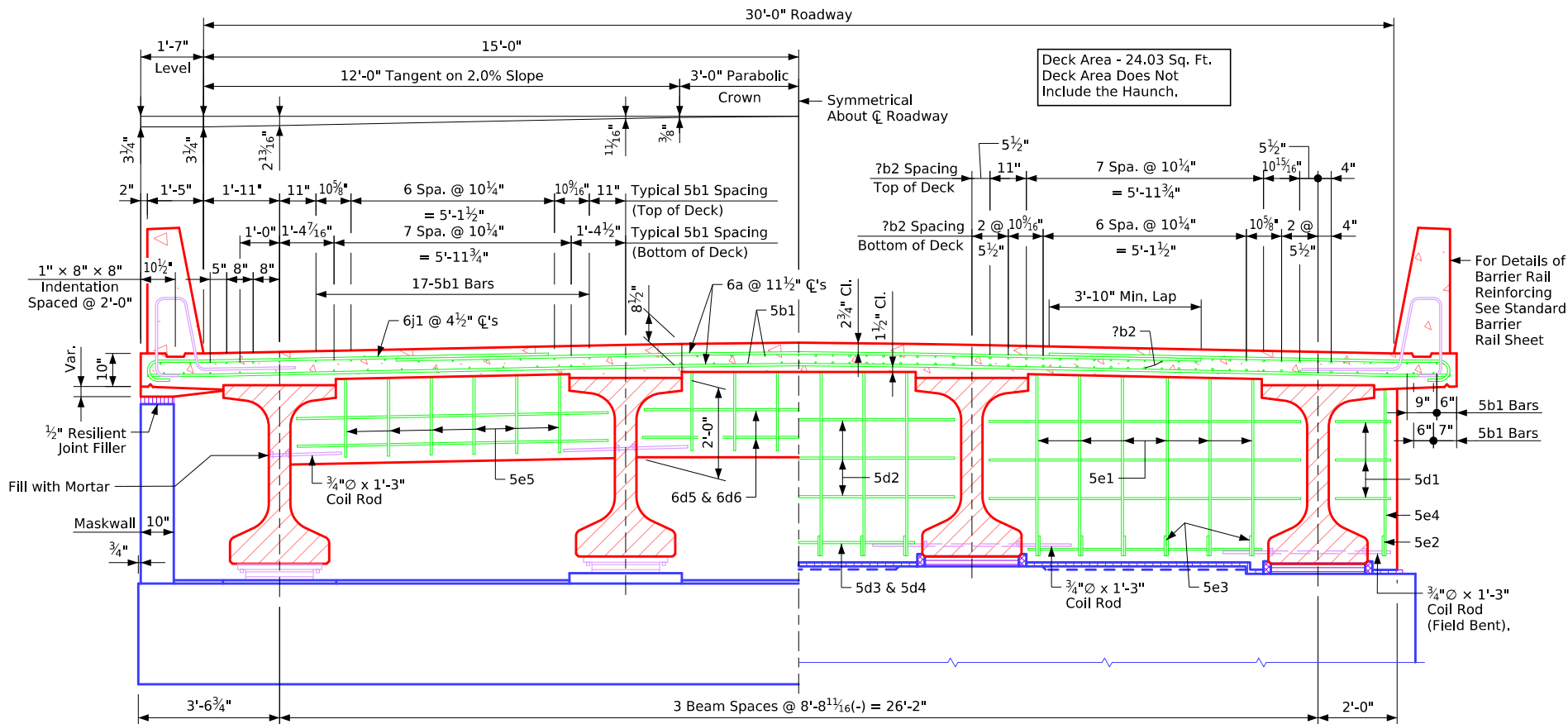
Table of Size of "b2" Bar

Longest Adjacent Span	BTD Beam Bar Size
30'-0"	----
35'-0"	----
40'-0"	----
45'-0"	----
50'-0"	** 4
55'-0"	** 4
60'-0"	** 5
65'-0"	** 6
70'-0"	** 6
75'-0"	** 7
80'-0"	** 8
85'-0"	** 8
90'-0"	** 9
95'-0"	** 9
100'-0"	7
105'-0"	7
110'-0"	8
115'-0"	8
120'-0"	8
125'-0"	8
130'-0"	9
135'-0"	9
140'-0"	----
145'-0"	----
150'-0"	----
155'-0"	----

The midpoint of the "b2" bar is to be placed at the CL of pier.

** Indicates "b2" bar placed in top deck only.

Note to Designer:
6j1 Spacing Shown for TL-4 Barrier. See Design Manual Section 5.2 for TL-5 6j1 spacing.



Half Section Near Abutment

Half Section Near Fixed Pier

Note: For Details of Intermediate Diaphragms See Design Sheet No. ??.

Note to Detailer:
"PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Superstructure Notes:

The bridge deck as shown includes $\frac{3}{4}$ " integral wearing surface. The pier and abutment diaphragm concrete is to be placed monolithically with the bridge deck.

Cost of all resilient joint filler material is to be included in the price bid for "Structural Concrete (Bridge)".

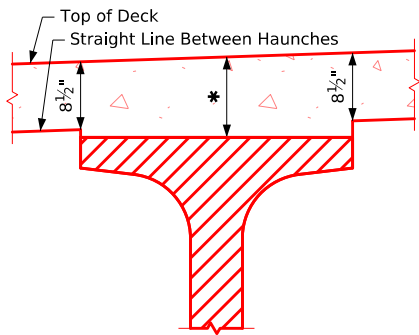
All beams are to be set vertical.

Forms for the deck and barrier rail are to be supported by the prestressed concrete beams.

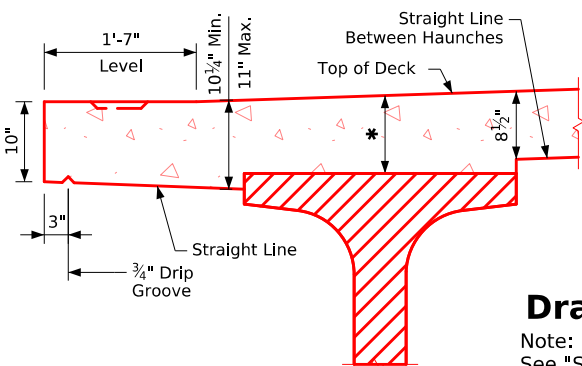
Clear distance from face of concrete to near reinforcing bar shall be 2" unless otherwise noted or shown.

All deck and diaphragm reinforcing is to be wired in place and adequately supported before concrete is placed.

Top transverse reinforcing steel is to be parallel to and $2\frac{3}{4}$ " clear below top of deck. Bottom transverse reinforcing steel is to be parallel to and $1\frac{1}{2}$ " clear above bottom of the deck. Top and bottom reinforcing steel is to be supported by individual bar chairs spaced at not more than 3'-0" centers longitudinally and transversely, or by continuous rows of bar high chairs or deck bolsters spaced 4'-0" apart. I.M. 451.01 requirements shall apply for bar chairs, bar high chairs, and deck bolsters.



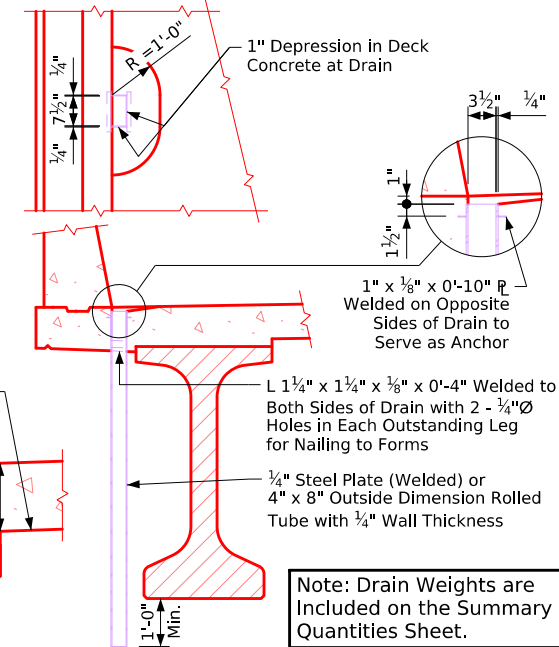
Interior Beams



Exterior Beams

Typical Deck and Haunch Detail

* For Deck Thickness Over Beams See "Haunch And Camber Details" on Design Sheet No. ??.

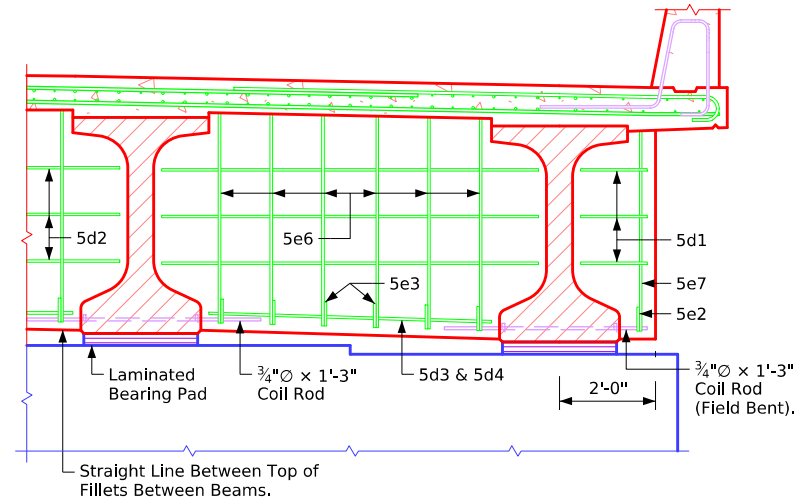


Drain Details

Note: Drains are to be galvanized. ?? Drains required. See "Situation Plan" on Design Sheet No. ?? for location. Weight of drains is included in the quantity for "Structural Steel". Weight is based on rolled tube.

Data for One Drain

Beam Size	BTD
Drain Weight (lbs.)	120
Drain Length (ft.)	6'-3 3/4"



Part Section Near Expansion Pier

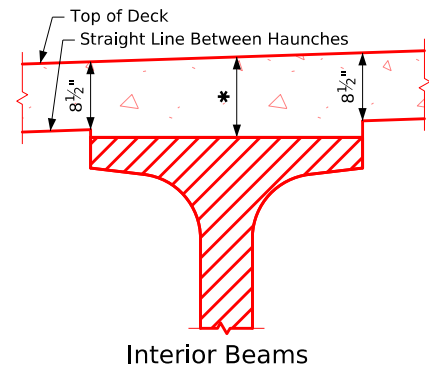
BTD 4 Beams - Stub Abut.

Correction 04-14: Added Referral Note to Summary Quantities Sheet for the Drain Weight. Note About Choice of Epoxy or Stainless Steel Deck to Barrier Rail Bars.
Revised 10-2026: In "Half Section Near Fixed Pier" and "Part Section Near Expansion Pier" details, changed Coil Rod to Field Bent (was labeled Bent).
BTSubBridges.dgn - 4556-BTE-4 - Issued 07-2008. This Sheet Re-Issued 11-2023. Sheet Format Update.

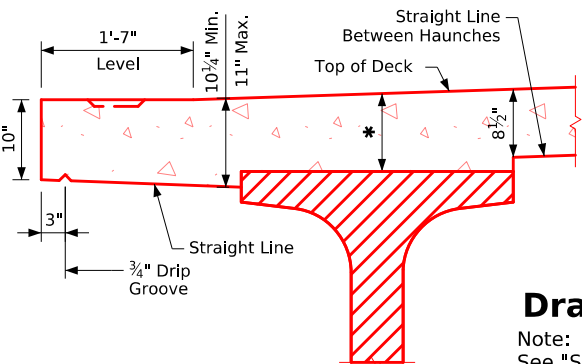
Table of Size of "b2" Bar	
Longest Adjacent Span	BTE Beam Bar Size
30'-0"	-----
35'-0"	-----
40'-0"	-----
45'-0"	-----
50'-0"	-----
55'-0"	-----
60'-0"	** 4
65'-0"	** 5
70'-0"	** 6
75'-0"	** 6
80'-0"	** 7
85'-0"	** 7
90'-0"	** 8
95'-0"	** 8
100'-0"	** 9
105'-0"	** 9
110'-0"	7
115'-0"	7
120'-0"	7
125'-0"	8
130'-0"	8
135'-0"	8
140'-0"	9
145'-0"	9
150'-0"	9
155'-0"	9

The midpoint of the "b2" bar is to be placed at the C of pier.

** Indicates "b2" bar placed in top deck only.



Interior Beams

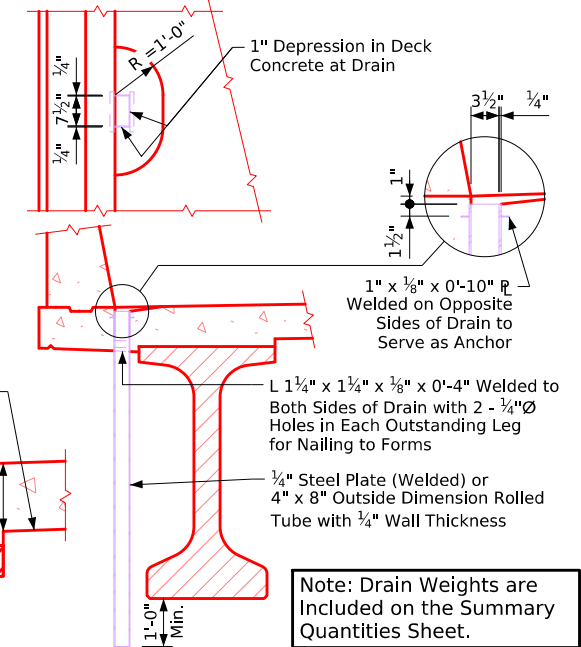


Exterior Beams

Typical Deck and Haunch Detail

* For Deck Thickness Over Beams See "Haunch And Camber Details" on Design Sheet No. ??.

Note to Designer:
6j1 Spacing Shown for TL-4 Barrier. See Design Manual Section 5.2 for TL-5 6j1 spacing.

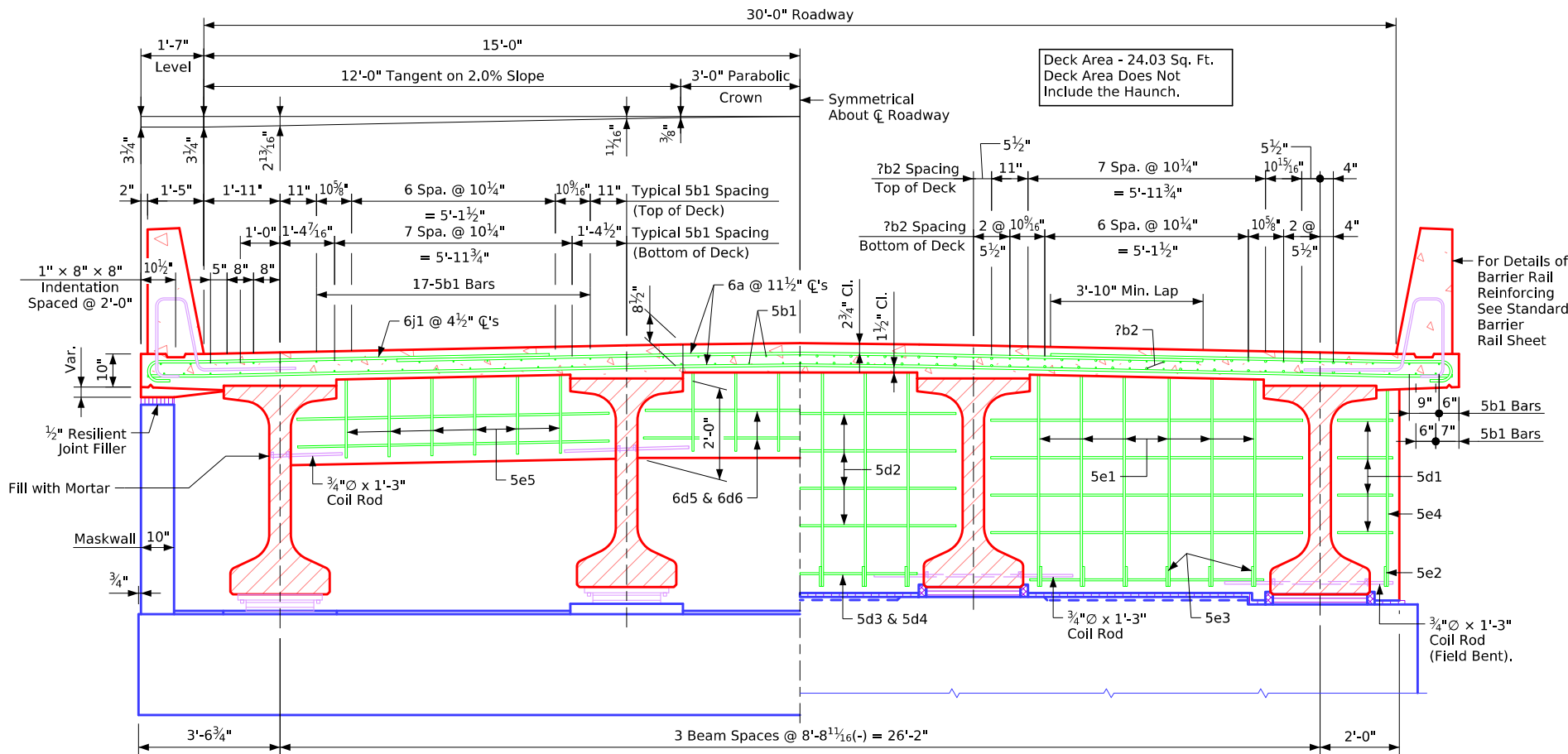


Drain Details

Note: Drains are to be galvanized. ?? Drains required. See "Situation Plan" on Design Sheet No. ?? for location. Weight of drains is included in the quantity for "Structural Steel". Weight is based on rolled tube.

Data for One Drain

Beam Size	BTE
Drain Weight (lbs.)	136
Drain Length (ft.)	7'-0 $\frac{3}{4}$ "



Half Section Near Abutment

Note: For Details of Intermediate Diaphragms See Design Sheet No. ??.

Note to Detailer:
"PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Superstructure Notes:

The bridge deck as shown includes $\frac{3}{4}$ " integral wearing surface. The pier and abutment diaphragm concrete is to be placed monolithically with the bridge deck.

Cost of all resilient joint filler material is to be included in the price bid for "Structural Concrete (Bridge)".

All beams are to be set vertical.

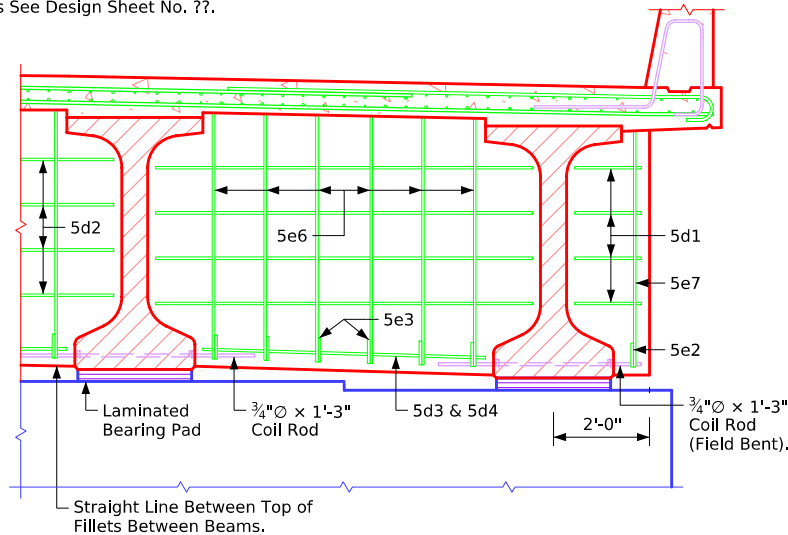
Forms for the deck and barrier rail are to be supported by the prestressed concrete beams.

Clear distance from face of concrete to near reinforcing bar shall be 2" unless otherwise noted or shown.

All deck and diaphragm reinforcing is to be wired in place and adequately supported before concrete is placed.

Top transverse reinforcing steel is to be parallel to and $2\frac{3}{4}$ " clear below top of deck. Bottom transverse reinforcing steel is to be parallel to and $1\frac{1}{2}$ " clear above bottom of the deck. Top and bottom reinforcing steel is to be supported by individual bar chairs spaced at not more than 3'-0" centers longitudinally and transversely, or by continuous rows of bar high chairs or deck bolsters spaced 4'-0" apart. I.M. 451.01 requirements shall apply for bar chairs, bar high chairs, and deck bolsters.

Half Section Near Fixed Pier



Part Section Near Expansion Pier

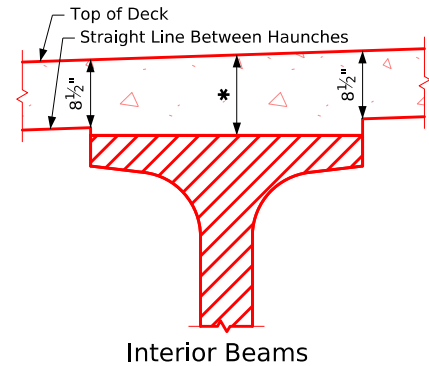
BTE 4 Beams - Stub Abut.

Correction 04-14: Added Referral Note to Summary Quantities Sheet for the Drain Weight. Note About Choice of Epoxy or Stainless Steel Deck to Barrier Rail Bars.
Revised 10-2026: In "Half Section Near Fixed Pier" and "Part Section Near Expansion Pier" details, changed Coil Rod to Field Bent (was labeled Bent).
BTSubBridges.dgn - 4556-BTE - Issued 07-2008. This Sheet Re-Issued 11-2023. Sheet Format Update.

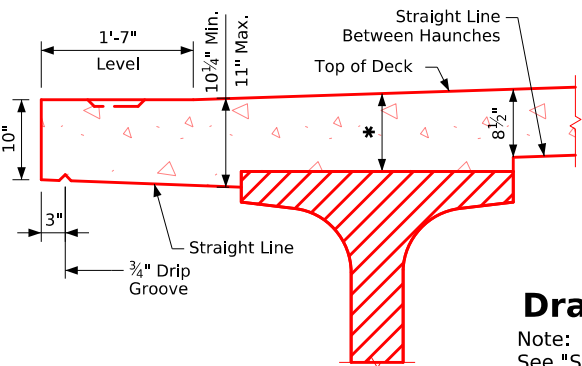
Table of Size of "b2" Bar	
Longest Adjacent Span	BTE Beam Bar Size
30'-0"	----
35'-0"	----
40'-0"	----
45'-0"	----
50'-0"	----
55'-0"	----
60'-0"	** 4
65'-0"	** 5
70'-0"	** 6
75'-0"	** 6
80'-0"	** 7
85'-0"	** 7
90'-0"	** 8
95'-0"	** 8
100'-0"	** 9
105'-0"	** 9
110'-0"	7
115'-0"	7
120'-0"	7
125'-0"	8
130'-0"	8
135'-0"	8
140'-0"	9
145'-0"	9
150'-0"	9
155'-0"	9

The midpoint of the "b2" bar is to be placed at the C of pier.

** Indicates "b2" bar placed in top deck only.



Interior Beams

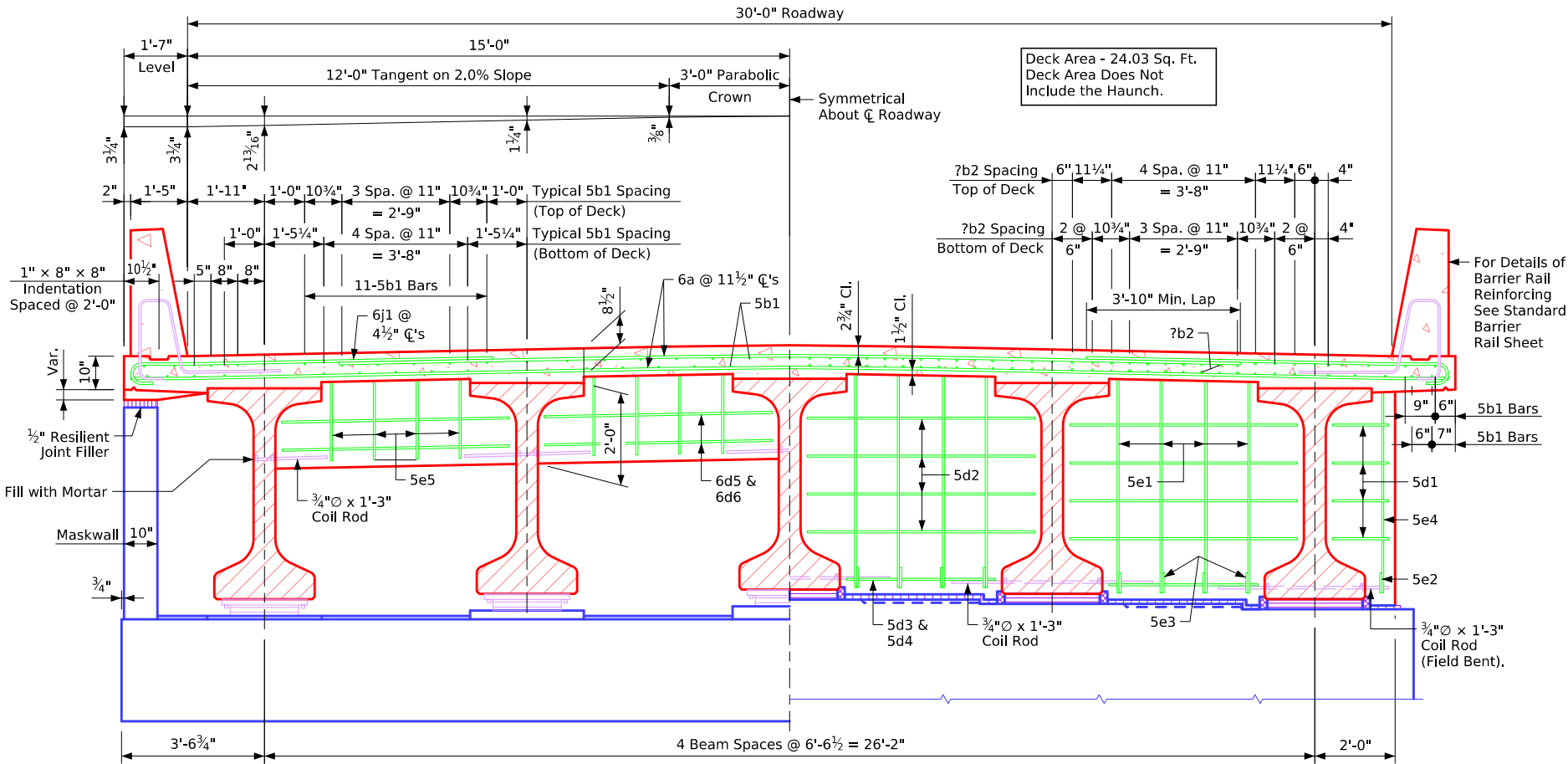


Exterior Beams

Typical Deck and Haunch Detail

* For Deck Thickness Over Beams See "Haunch And Camber Details" on Design Sheet No. ??.

Note to Designer:
6j1 Spacing Shown for TL-4 Barrier. See Design Manual Section 5.2 for TL-5 6j1 spacing.



Half Section Near Abutment

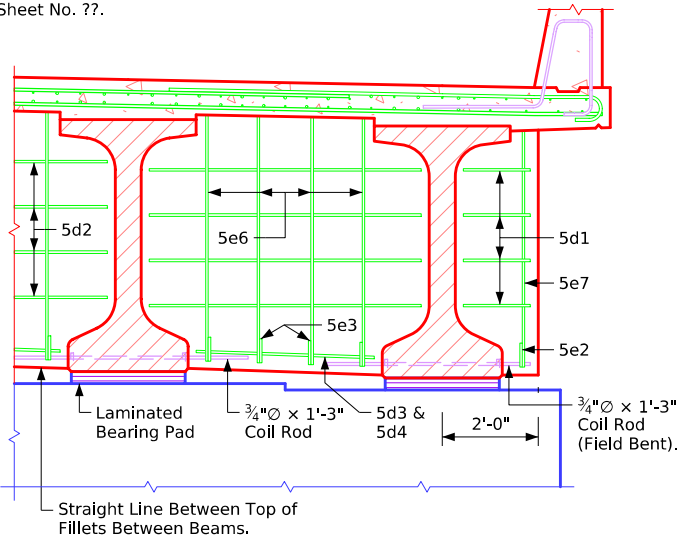
Half Section Near Fixed Pier

Note: For Details of Intermediate Diaphragms See Design Sheet No. ??.

Note to Detailer:
"PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Superstructure Notes:

The bridge deck as shown includes $\frac{3}{4}$ " integral wearing surface. The pier and abutment diaphragm concrete is to be placed monolithically with the bridge deck.
Cost of all resilient joint filler material is to be included in the price bid for "Structural Concrete (Bridge)".
All beams are to be set vertical.
Forms for the deck and barrier rail are to be supported by the prestressed concrete beams.
Clear distance from face of concrete to near reinforcing bar shall be 2" unless otherwise noted or shown.
All deck and diaphragm reinforcing is to be wired in place and adequately supported before concrete is placed.
Top transverse reinforcing steel is to be parallel to and $2\frac{3}{4}$ " clear below top of deck. Bottom transverse reinforcing steel is to be parallel to and $1\frac{1}{2}$ " clear above bottom of the deck. Top and bottom reinforcing steel is to be supported by individual bar chairs spaced at not more than 3'-0" centers longitudinally and transversely, or by continuous rows of bar high chairs or deck bolsters spaced 4'-0" apart. I.M. 451.01 requirements shall apply for bar chairs, bar high chairs, and deck bolsters.



Part Section Near Expansion Pier

BTE 5 Beams - Stub Abut.

Data for One Drain

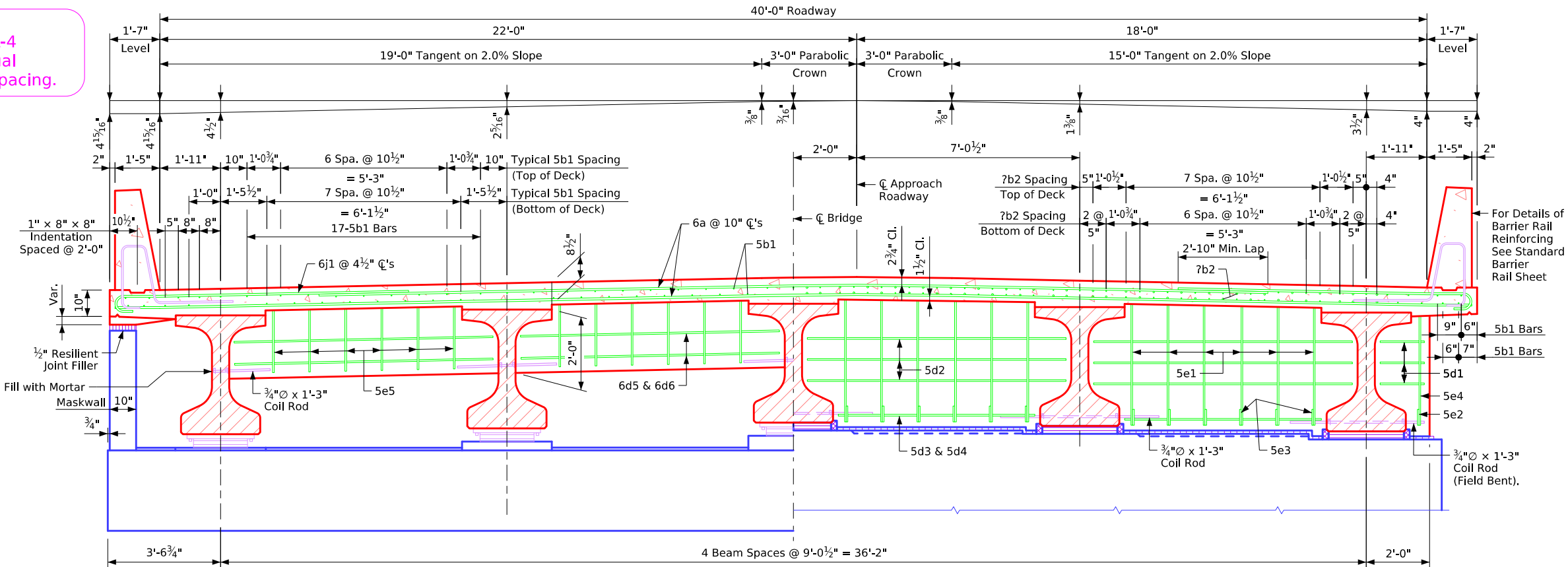
Beam Size	BTE
Drain Weight (lbs.)	136
Drain Length (ft.)	7'-0 $\frac{3}{4}$ "

Correction 04-14: Added Referral Note to Summary Quantities Sheet for the Drain Weight. Note About Choice of Epoxy or Stainless Steel Deck to Barrier Rail Bars.
Revised 10-2026: In "Half Section Near Fixed Pier" and "Part Section Near Expansion Pier" details, changed Coil Rod to Field Bent (was labeled Bent).
BTSubBridges.dgn - 4559-BTC-5 - Issued 07-2008. This Sheet Re-Issued 11-2023. Sheet Format Update.

Table of Size
of "b2" Bar

Longest Adjacent Span	BTC Beam Bar Size
30'-0"	** 4
35'-0"	** 4
40'-0"	** 4
45'-0"	** 4
50'-0"	** 4
55'-0"	** 4
60'-0"	** 6
65'-0"	** 7
70'-0"	** 7
75'-0"	** 8
80'-0"	** 9
85'-0"	** 9
90'-0"	7
95'-0"	7
100'-0"	8
105'-0"	8
110'-0"	8
115'-0"	8
120'-0"	8
125'-0"	-----
130'-0"	-----
135'-0"	-----
140'-0"	-----
145'-0"	-----
150'-0"	-----
155'-0"	-----

Note to Designer:
6j1 Spacing Shown for TL-4
Barrier. See Design Manual
Section 5.2 for TL-5 6j1 spacing.



Half Section Near Abutment

Half Section Near Fixed Pier

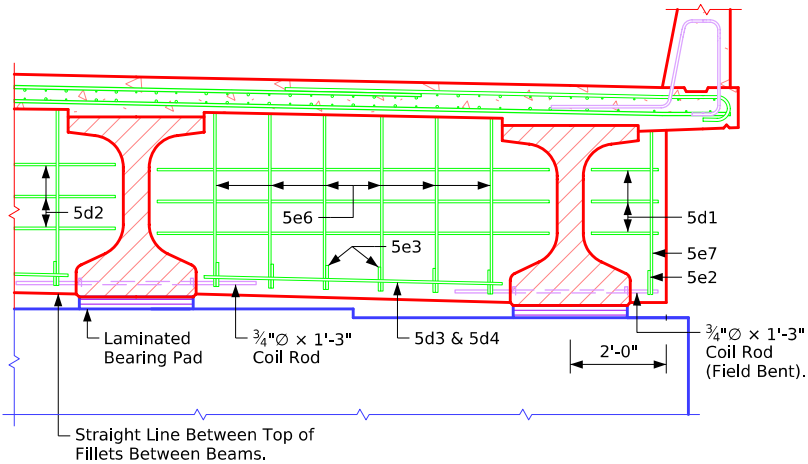
Note: For Details of Intermediate Diaphragms See Design Sheet No. ??.

Deck Area - 31.11 Sq. Ft.
Deck Area Does Not
Include the Haunch.

Note to Detailer:
"PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS"
Level Should be On or Off Depending on Barrier
Rail Steel Embedded in the Bridge Deck

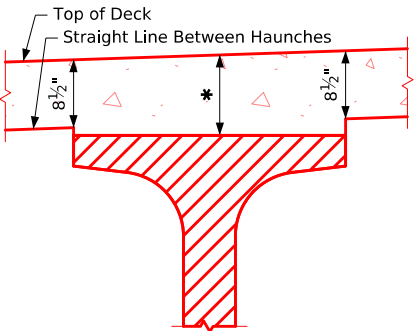
Superstructure Notes:

The bridge deck as shown includes 3/4" integral wearing surface. The pier and abutment diaphragm concrete is to be placed monolithically with the bridge deck.
Cost of all resilient joint filler material is to be included in the price bid for "Structural Concrete (Bridge)".
All beams are to be set vertical.
Forms for the deck and barrier rail are to be supported by the prestressed concrete beams.
Clear distance from face of concrete to near reinforcing bar shall be 2" unless otherwise noted or shown.
All deck and diaphragm reinforcing is to be wired in place and adequately supported before concrete is placed.
Top transverse reinforcing steel is to be parallel to and 2 3/4" clear below top of deck. Bottom transverse reinforcing steel is to be parallel to and 1 1/2" clear above bottom of the deck. Top and bottom reinforcing steel is to be supported by individual bar chairs spaced at not more than 3'-0" centers longitudinally and transversely, or by continuous rows of bar high chairs or deck bolsters spaced 4'-0" apart. I.M. 451.01 requirements shall apply for bar chairs, bar high chairs, and deck bolsters.
Transverse deck reinforcing may be spliced with one lap located as follows:
Top bar - Lap midway between beams (min. lap = 2'-10").
Bottom bars - Lap over beams (min. lap = 3'-7").
Payment for reinforcing bars shall be based on no splices, and no allowance shall be made for the additional length of bar required for the use of splices.

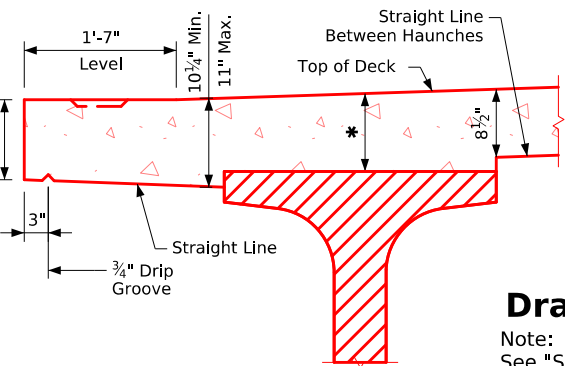


Part Section Near Expansion Pier

BTC 5 Beams - Stub Abut.



Interior Beams



Exterior Beams

Typical Deck and
Haunch Detail

* For Deck Thickness Over Beams See
"Haunch And Camber Details" on
Design Sheet No. ??.

Drain Details

Note: Drains are to be galvanized. ?? Drains required.
See "Situation Plan" on Design Sheet No. ?? for
location. Weight of drains is included in the quantity
for "Structural Steel". Weight is based on rolled tube.

Data for One Drain

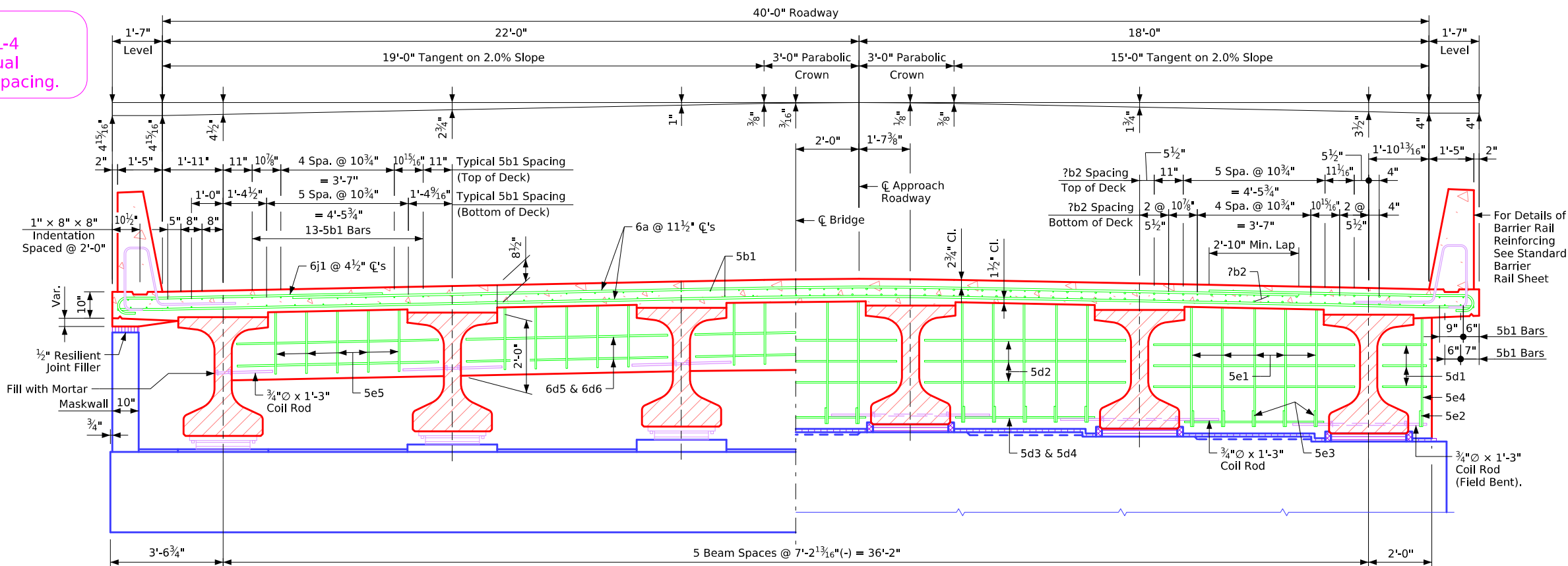
Beam Size	BTC
Drain Weight (lbs.)	106
Drain Length (ft.)	5'-6 3/4"

Correction 04-14: Added Referral Note to Summary Quantities Sheet for the Drain Weight. Note About Choice of Epoxy or Stainless Steel Deck to Barrier Rail Bars.
Revised 10-2026: In "Half Section Near Fixed Pier" and "Part Section Near Expansion Pier" details, changed Coil Rod to Field Bent (was labeled Bent).
BTSubBridges.dgn - 4559-BTC-6 - Issued 07-2008. This Sheet Re-Issued 11-2023. Sheet Format Update.

Table of Size of "b2" Bar

Longest Adjacent Span	BTC Beam Bar Size
30'-0"	** 4
35'-0"	** 4
40'-0"	** 4
45'-0"	** 4
50'-0"	** 4
55'-0"	** 4
60'-0"	** 6
65'-0"	** 7
70'-0"	** 7
75'-0"	** 8
80'-0"	** 9
85'-0"	** 9
90'-0"	7
95'-0"	7
100'-0"	8
105'-0"	8
110'-0"	8
115'-0"	8
120'-0"	8
125'-0"	-----
130'-0"	-----
135'-0"	-----
140'-0"	-----
145'-0"	-----
150'-0"	-----
155'-0"	-----

Note to Designer:
6j1 Spacing Shown for TL-4 Barrier. See Design Manual Section 5.2 for TL-5 6j1 spacing.



Half Section Near Abutment

Half Section Near Fixed Pier

Note: For Details of Intermediate Diaphragms See Design Sheet No. ??.

Deck Area - 31.11 Sq. Ft.
Deck Area Does Not Include the Haunch.

Note to Detailer:
"PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Superstructure Notes:

The bridge deck as shown includes 3/4" integral wearing surface. The pier and abutment diaphragm concrete is to be placed monolithically with the bridge deck.

Cost of all resilient joint filler material is to be included in the price bid for "Structural Concrete (Bridge)".

All beams are to be set vertical.

Forms for the deck and barrier rail are to be supported by the prestressed concrete beams.

Clear distance from face of concrete to near reinforcing bar shall be 2" unless otherwise noted or shown.

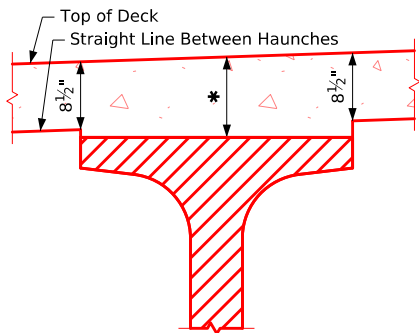
All deck and diaphragm reinforcing is to be wired in place and adequately supported before concrete is placed.

Top transverse reinforcing steel is to be parallel to and 2 3/4" clear below top of deck. Bottom transverse reinforcing steel is to be parallel to and 1 1/2" clear above bottom of the deck. Top and bottom reinforcing steel is to be supported by individual bar chairs spaced at not more than 3'-0" centers longitudinally and transversely, or by continuous rows of bar high chairs or deck bolsters spaced 4'-0" apart. I.M. 451.01 requirements shall apply for bar chairs, bar high chairs, and deck bolsters.

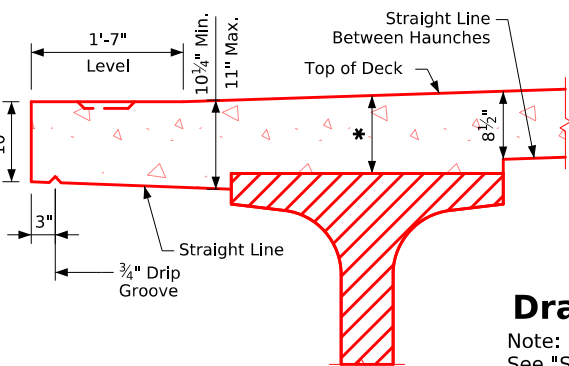
Transverse deck reinforcing may be spliced with one lap located as follows:

Top bar - Lap midway between beams (min. lap = 2'-10").
Bottom bars - Lap over beams (min. lap = 3'-7").

Payment for reinforcing bars shall be based on no splices, and no allowance shall be made for the additional length of bar required for the use of splices.



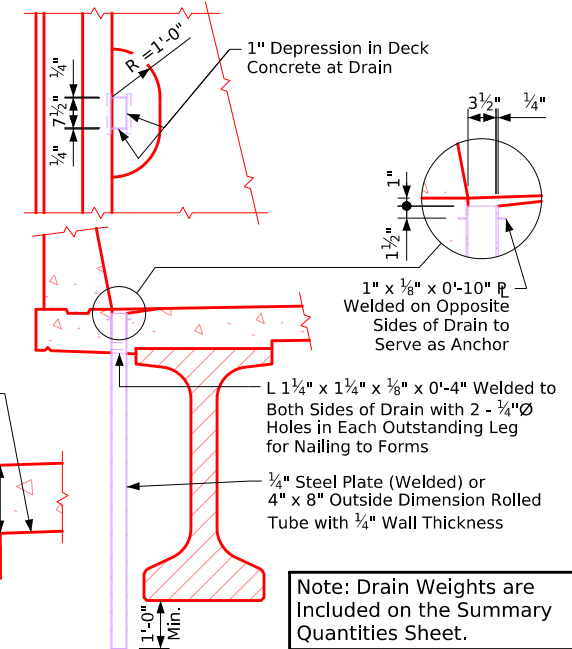
Interior Beams



Exterior Beams

Typical Deck and Haunch Detail

* For Deck Thickness Over Beams See "Haunch And Camber Details" on Design Sheet No. ??.

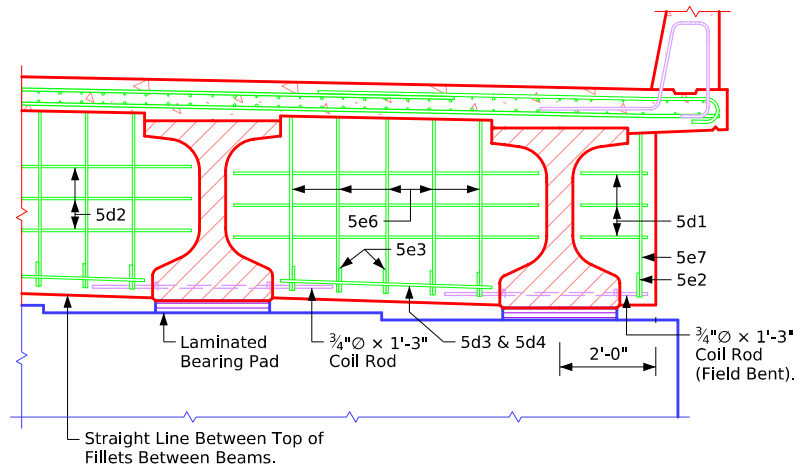


Drain Details

Note: Drains are to be galvanized. ?? Drains required. See "Situation Plan" on Design Sheet No. ?? for location. Weight of drains is included in the quantity for "Structural Steel". Weight is based on rolled tube.

Data for One Drain

Beam Size	BTC
Drain Weight (lbs.)	106
Drain Length (ft.)	5'-6 3/4"



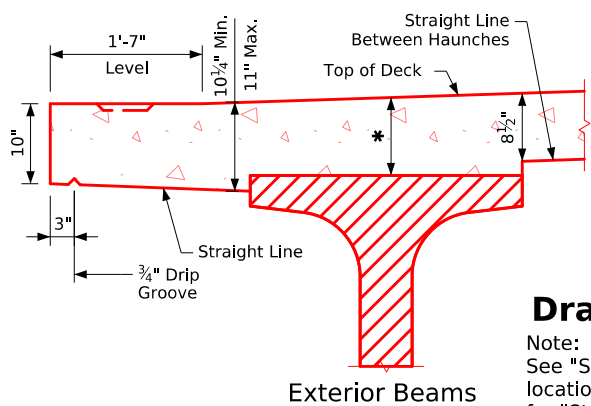
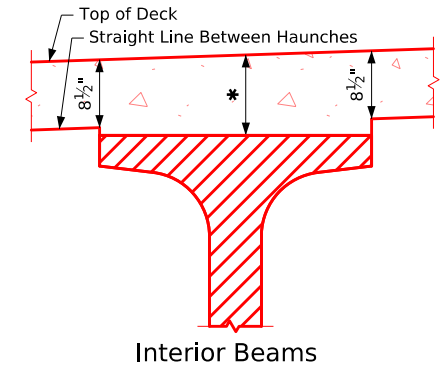
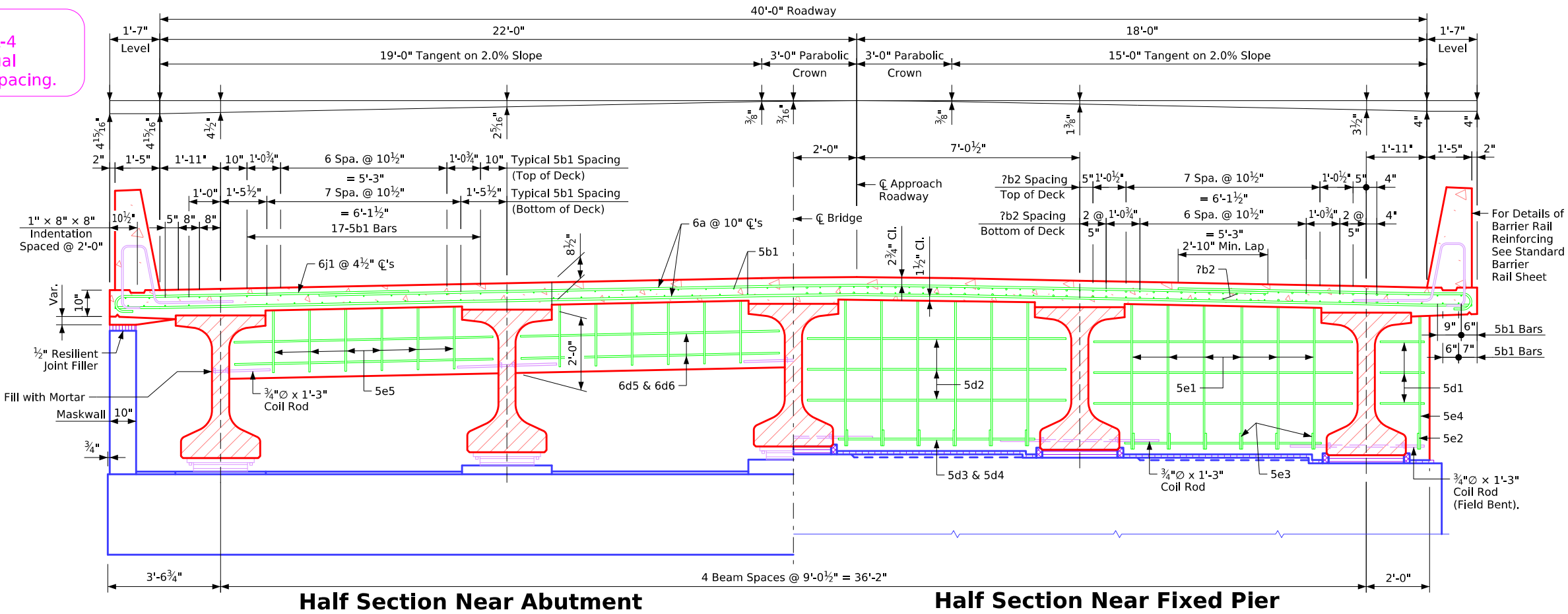
Part Section Near Expansion Pier

BTC 6 Beams - Stub Abut.

Correction 04-14: Added Referral Note to Summary Quantities Sheet for the Drain Weight. Note About Choice of Epoxy or Stainless Steel Deck to Barrier Rail Bars.
Revised 10-2026: In "Half Section Near Fixed Pier" and "Part Section Near Expansion Pier" details, changed Coil Rod to Field Bent (was labeled Bent).
BTSubBridges.dgn - 4559-BTD-5 - Issued 07-2008. This Sheet Re-Issued 11-2023. Sheet Format Update.

Table of Size of "b2" Bar	
Longest Adjacent Span	BTD Beam Bar Size
30'-0"	-----
35'-0"	-----
40'-0"	-----
45'-0"	-----
50'-0"	** 4
55'-0"	** 4
60'-0"	** 5
65'-0"	** 6
70'-0"	** 6
75'-0"	** 7
80'-0"	** 8
85'-0"	** 8
90'-0"	** 9
95'-0"	** 9
100'-0"	7
105'-0"	7
110'-0"	8
115'-0"	8
120'-0"	8
125'-0"	8
130'-0"	9
135'-0"	9
140'-0"	-----
145'-0"	-----
150'-0"	-----
155'-0"	-----

Note to Designer:
6j1 Spacing Shown for TL-4 Barrier. See Design Manual Section 5.2 for TL-5 6j1 spacing.



Typical Deck and Haunch Detail

* For Deck Thickness Over Beams See "Haunch And Camber Details" on Design Sheet No. ??.

Drain Details

Note: Drains are to be galvanized. ?? Drains required. See "Situation Plan" on Design Sheet No. ?? for location. Weight of drains is included in the quantity for "Structural Steel". Weight is based on rolled tube.

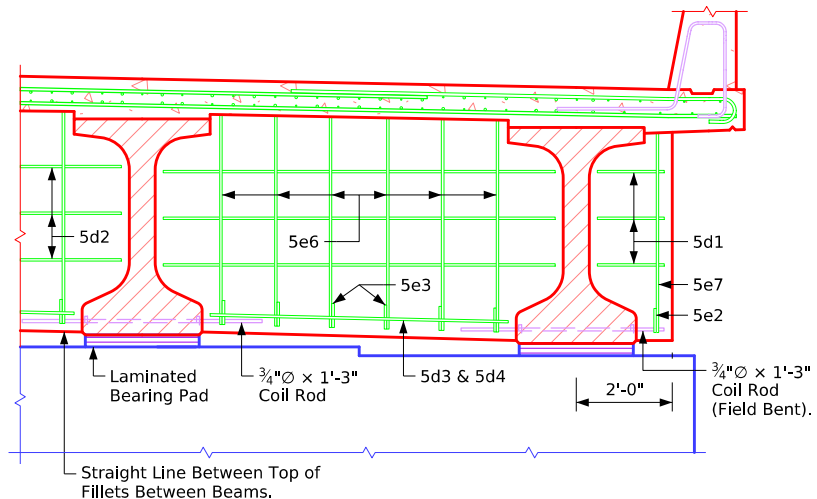
Data for One Drain

Beam Size	BTD
Drain Weight (lbs.)	120
Drain Length (ft.)	6'-3 3/4"

Superstructure Notes:

The bridge deck as shown includes 3/4" integral wearing surface. The pier and abutment diaphragm concrete is to be placed monolithically with the bridge deck.
Cost of all resilient joint filler material is to be included in the price bid for "Structural Concrete (Bridge)".
All beams are to be set vertical.
Forms for the deck and barrier rail are to be supported by the prestressed concrete beams.
Clear distance from face of concrete to near reinforcing bar shall be 2" unless otherwise noted or shown.
All deck and diaphragm reinforcing is to be wired in place and adequately supported before concrete is placed.
Top transverse reinforcing steel is to be parallel to and 2 3/4" clear below top of deck. Bottom transverse reinforcing steel is to be parallel to and 1 1/2" clear above bottom of the deck. Top and bottom reinforcing steel is to be supported by individual bar chairs spaced at not more than 3'-0" centers longitudinally and transversely, or by continuous rows of bar high chairs or deck bolsters spaced 4'-0" apart. I.M. 451.01 requirements shall apply for bar chairs, bar high chairs, and deck bolsters.
Transverse deck reinforcing may be spliced with one lap located as follows:
Top bar - Lap midway between beams (min. lap = 2'-10").
Bottom bars - Lap over beams (min. lap = 3'-7").
Payment for reinforcing bars shall be based on no splices, and no allowance shall be made for the additional length of bar required for the use of splices.

Half Section Near Fixed Pier



Part Section Near Expansion Pier

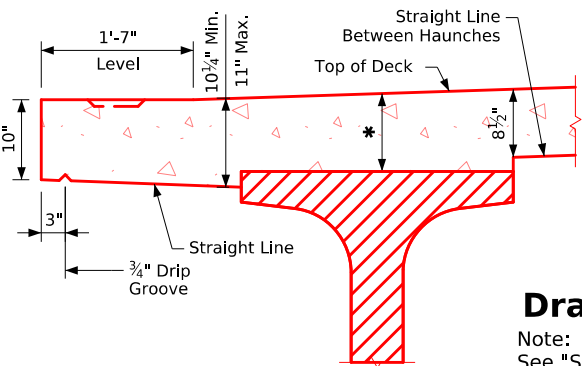
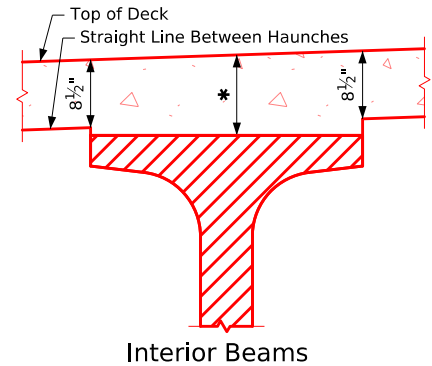
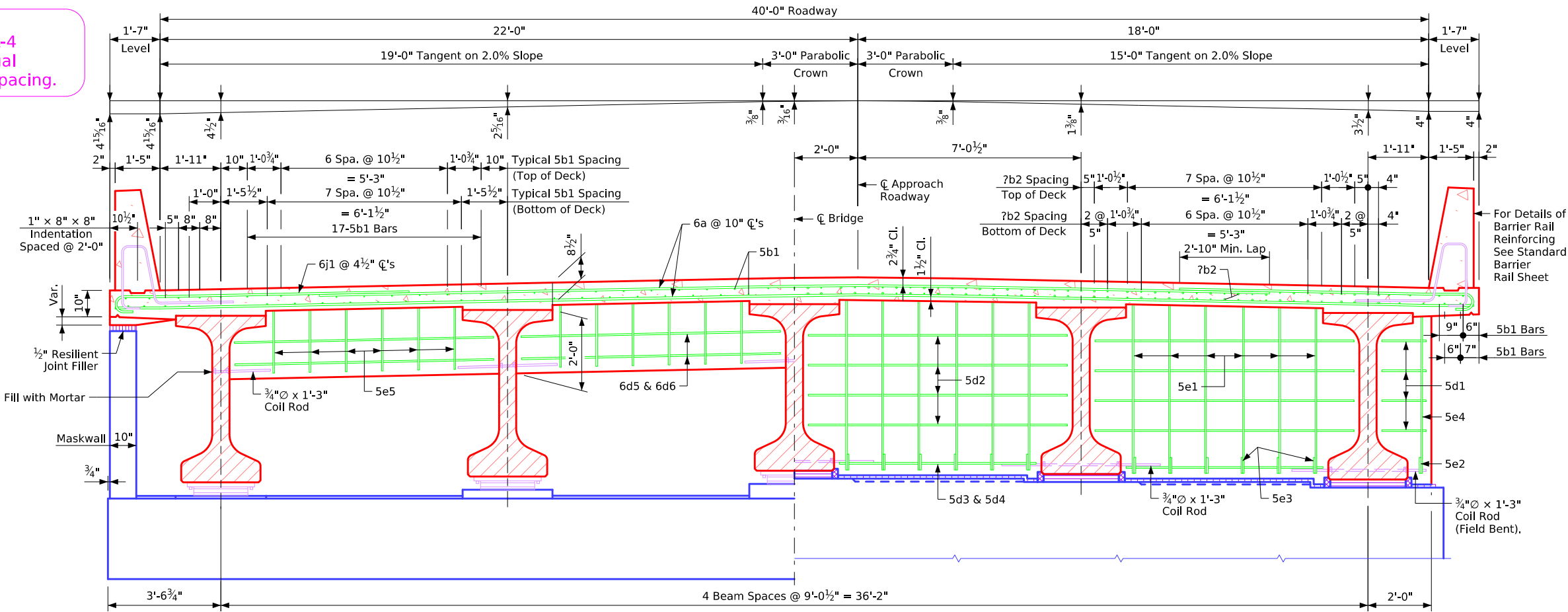
BTD 5 Beams - Stub Abut.

Correction 04-14: Added Referral Note to Summary Quantities Sheet for the Drain Weight. Note About Choice of Epoxy or Stainless Steel Deck to Barrier Rail Bars.
Revised 10-2026: In "Half Section Near Fixed Pier" and "Part Section Near Expansion Pier" details, changed Coil Rod to Field Bent (was labeled Bent).
BTSubBridges.dgn - 4559-BTE-5 - Issued 07-2008. This Sheet Re-Issued 11-2023. Sheet Format Update.

Table of Size of "b2" Bar

Longest Adjacent Span	BTE Beam Bar Size
30'-0"	-----
35'-0"	-----
40'-0"	-----
45'-0"	-----
50'-0"	-----
55'-0"	-----
60'-0"	** 4
65'-0"	** 5
70'-0"	** 6
75'-0"	** 6
80'-0"	** 7
85'-0"	** 7
90'-0"	** 8
95'-0"	** 8
100'-0"	** 9
105'-0"	** 9
110'-0"	7
115'-0"	7
120'-0"	7
125'-0"	8
130'-0"	8
135'-0"	8
140'-0"	9
145'-0"	9
150'-0"	9
155'-0"	9

Note to Designer:
6j1 Spacing Shown for TL-4 Barrier. See Design Manual Section 5.2 for TL-5 6j1 spacing.



Typical Deck and Haunch Detail

* For Deck Thickness Over Beams See "Haunch And Camber Details" on Design Sheet No. ??.

Drain Details

Note: Drains are to be galvanized. ?? Drains required. See "Situation Plan" on Design Sheet No. ?? for location. Weight of drains is included in the quantity for "Structural Steel". Weight is based on rolled tube.

Data for One Drain

Beam Size	BTE
Drain Weight (lbs.)	136
Drain Length (ft.)	7'-0 3/4"

Half Section Near Abutment

Note: For Details of Intermediate Diaphragms See Design Sheet No. ??.

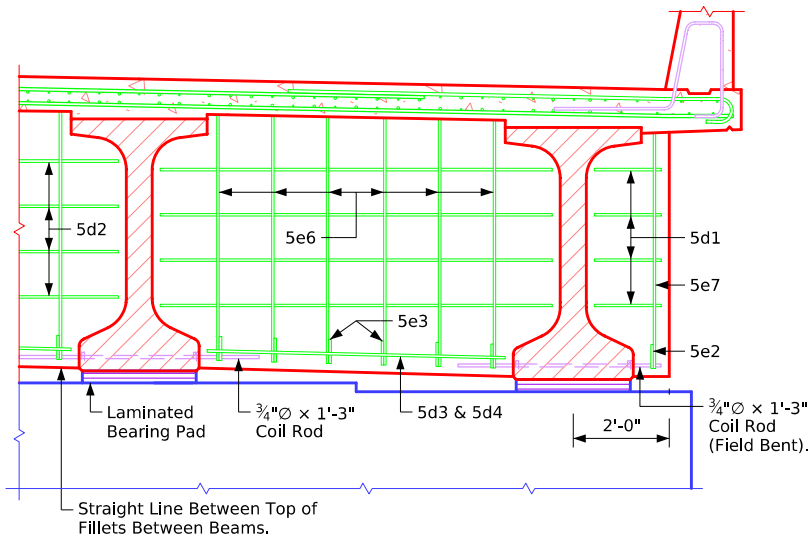
Half Section Near Fixed Pier

Deck Area - 31.11 Sq. Ft.
Deck Area Does Not Include the Haunch.

Note to Detailer:
"PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Superstructure Notes:

The bridge deck as shown includes 3/4" integral wearing surface. The pier and abutment diaphragm concrete is to be placed monolithically with the bridge deck.
Cost of all resilient joint filler material is to be included in the price bid for "Structural Concrete (Bridge)".
All beams are to be set vertical.
Forms for the deck and barrier rail are to be supported by the prestressed concrete beams.
Clear distance from face of concrete to near reinforcing bar shall be 2" unless otherwise noted or shown.
All deck and diaphragm reinforcing is to be wired in place and adequately supported before concrete is placed.
Top transverse reinforcing steel is to be parallel to and 2 3/4" clear below top of deck. Bottom transverse reinforcing steel is to be parallel to and 1 1/2" clear above bottom of the deck. Top and bottom reinforcing steel is to be supported by individual bar chairs spaced at not more than 3'-0" centers longitudinally and transversely, or by continuous rows of bar high chairs or deck bolsters spaced 4'-0" apart. I.M. 451.01 requirements shall apply for bar chairs, bar high chairs, and deck bolsters.
Transverse deck reinforcing may be spliced with one lap located as follows:
Top bar - Lap midway between beams (min. lap = 2'-10").
Bottom bars - Lap over beams (min. lap = 3'-7").
Payment for reinforcing bars shall be based on no splices, and no allowance shall be made for the additional length of bar required for the use of splices.



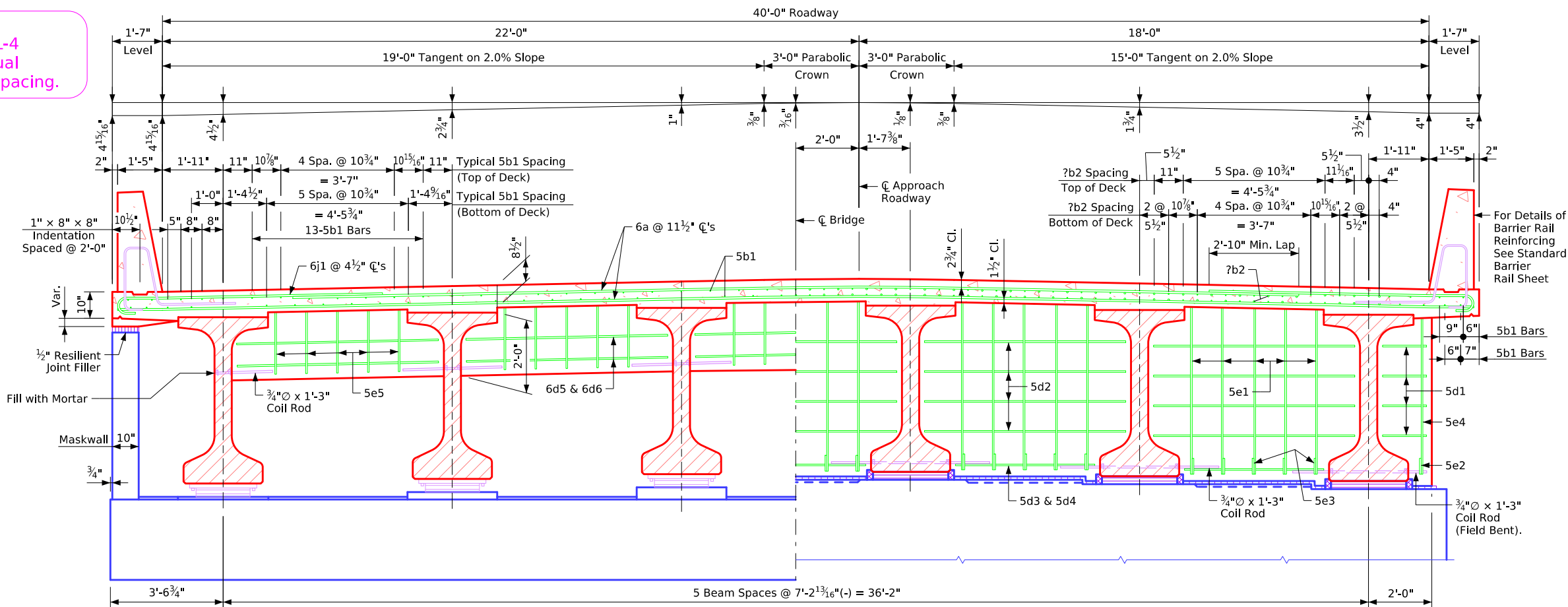
Part Section Near Expansion Pier

BTE 5 Beams - Stub Abut.

Correction 04-14: Added Referral Note to Summary Quantities Sheet for the Drain Weight. Note About Choice of Epoxy or Stainless Steel Deck to Barrier Rail Bars.
Revised 10-2026: In "Half Section Near Fixed Pier" and "Part Section Near Expansion Pier" details, changed Coil Rod to Field Bent (was labeled Bent).
BTSubBridges.dgn - 4559-BTE-6 - Issued 07-2008. This Sheet Re-Issued 11-2023. Sheet Format Update.

Table of Size of "b2" Bar	
Longest Adjacent Span	BTE Beam Bar Size
30'-0"	-----
35'-0"	-----
40'-0"	-----
45'-0"	-----
50'-0"	-----
55'-0"	-----
60'-0"	** 4
65'-0"	** 5
70'-0"	** 6
75'-0"	** 6
80'-0"	** 7
85'-0"	** 7
90'-0"	** 8
95'-0"	** 8
100'-0"	** 9
105'-0"	** 9
110'-0"	7
115'-0"	7
120'-0"	7
125'-0"	8
130'-0"	8
135'-0"	8
140'-0"	9
145'-0"	9
150'-0"	9
155'-0"	9

Note to Designer:
6j1 Spacing Shown for TL-4 Barrier. See Design Manual Section 5.2 for TL-5 6j1 spacing.



Half Section Near Abutment

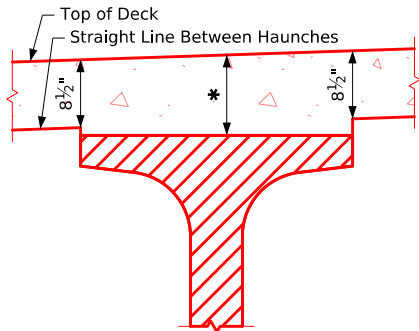
Half Section Near Fixed Pier

Note: For Details of Intermediate Diaphragms See Design Sheet No. ??.

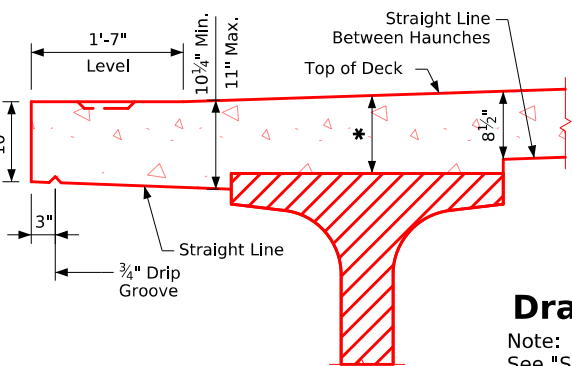
Note to Detailer:
"PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Superstructure Notes:

The bridge deck as shown includes 3/4" integral wearing surface. The pier and abutment diaphragm concrete is to be placed monolithically with the bridge deck.
Cost of all resilient joint filler material is to be included in the price bid for "Structural Concrete (Bridge)".
All beams are to be set vertical.
Forms for the deck and barrier rail are to be supported by the prestressed concrete beams.
Clear distance from face of concrete to near reinforcing bar shall be 2" unless otherwise noted or shown.
All deck and diaphragm reinforcing is to be wired in place and adequately supported before concrete is placed.
Top transverse reinforcing steel is to be parallel to and 2 3/4" clear below top of deck. Bottom transverse reinforcing steel is to be parallel to and 1 1/2" clear above bottom of the deck. Top and bottom reinforcing steel is to be supported by individual bar chairs spaced at not more than 3'-0" centers longitudinally and transversely, or by continuous rows of bar high chairs or deck bolsters spaced 4'-0" apart. I.M. 451.01 requirements shall apply for bar chairs, bar high chairs, and deck bolsters.
Transverse deck reinforcing may be spliced with one lap located as follows:
Top bar - Lap midway between beams (min. lap = 2'-10").
Bottom bars - Lap over beams (min. lap = 3'-7").
Payment for reinforcing bars shall be based on no splices, and no allowance shall be made for the additional length of bar required for the use of splices.



Interior Beams



Exterior Beams

Typical Deck and Haunch Detail

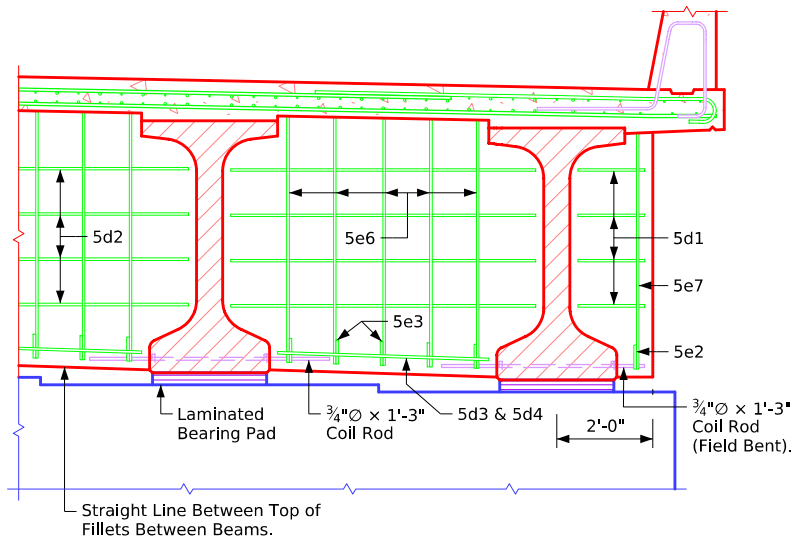
* For Deck Thickness Over Beams See "Haunch And Camber Details" on Design Sheet No. ??.

Drain Details

Note: Drains are to be galvanized. ?? Drains required. See "Situation Plan" on Design Sheet No. ?? for location. Weight of drains is included in the quantity for "Structural Steel". Weight is based on rolled tube.

Data for One Drain

Beam Size	BTE
Drain Weight (lbs.)	136
Drain Length (ft.)	7'-0 3/4"



Part Section Near Expansion Pier

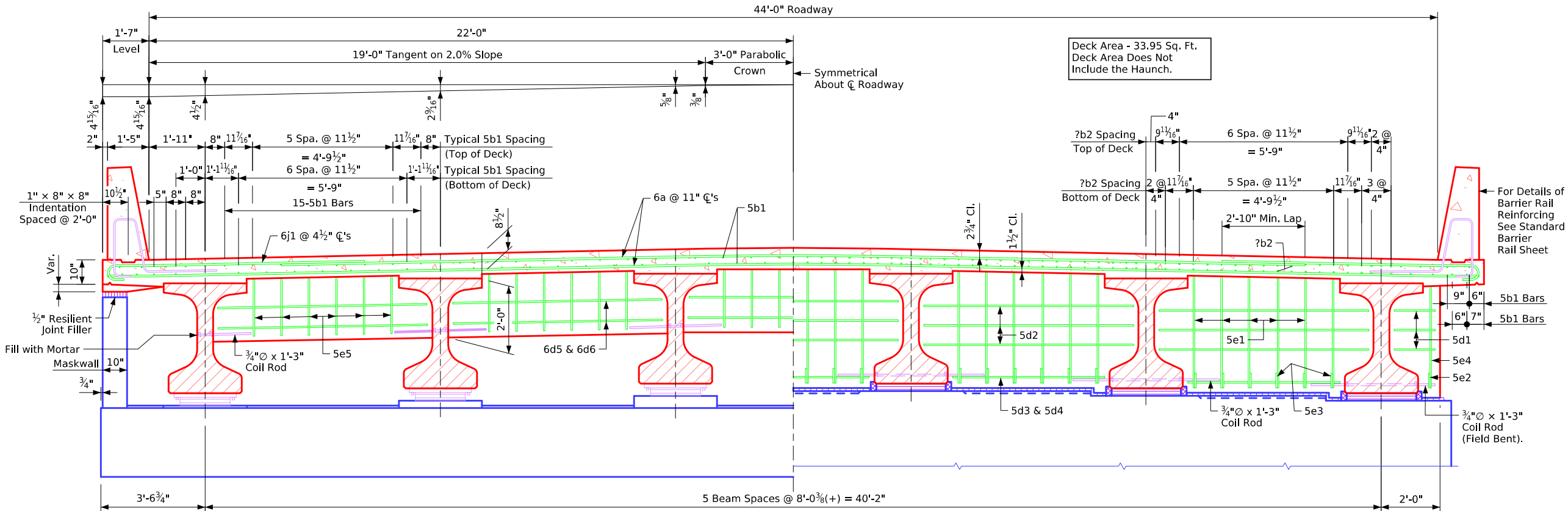
BTE 6 Beams - Stub Abut.

Correction 04-14: Added Referral Note to Summary Quantities Sheet for the Drain Weight. Note About Choice of Epoxy or Stainless Steel Deck to Barrier Rail Bars.
Revised 10-2026: In "Half Section Near Fixed Pier" and "Part Section Near Expansion Pier" details, changed Coil Rod to Field Bent (was labeled Bent).
BTSubBridges.dgn - 4560-BTC-6 - Issued 07-2008. This Sheet Re-Issued 11-2023. Sheet Format Update.

Table of Size of "b2" Bar	
Longest Adjacent Span	BTC Beam Bar Size
30'-0"	** 4
35'-0"	** 4
40'-0"	** 4
45'-0"	** 4
50'-0"	** 4
55'-0"	** 4
60'-0"	** 6
65'-0"	** 7
70'-0"	** 7
75'-0"	** 8
80'-0"	** 9
85'-0"	** 9
90'-0"	7
95'-0"	7
100'-0"	8
105'-0"	8
110'-0"	8
115'-0"	8
120'-0"	8
125'-0"	-----
130'-0"	-----
135'-0"	-----
140'-0"	-----
145'-0"	-----
150'-0"	-----
155'-0"	-----

The midpoint of the "b2" bar is to be placed at the C of pier.

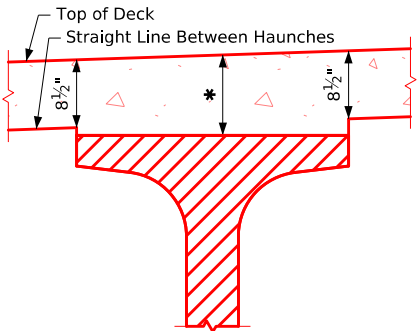
** Indicates "b2" bar placed in top deck only.



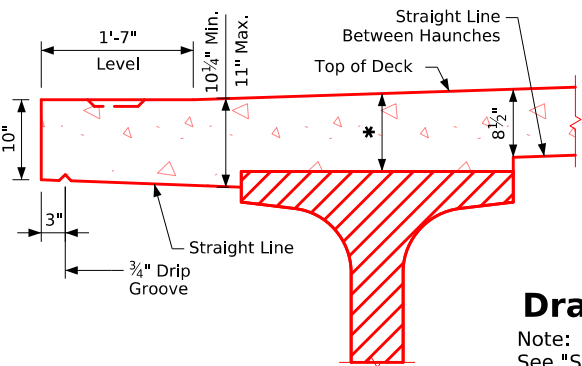
Half Section Near Abutment

Half Section Near Fixed Pier

Note: For Details of Intermediate Diaphragms See Design Sheet No. ??.



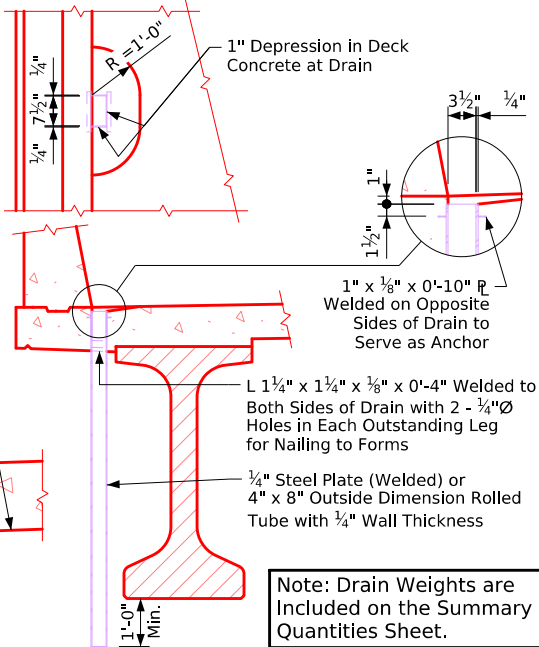
Interior Beams



Exterior Beams

Typical Deck and Haunch Detail

* For Deck Thickness Over Beams See "Haunch And Camber Details" on Design Sheet No. ??.



Drain Details

Note: Drains are to be galvanized. ?? Drains required. See "Situation Plan" on Design Sheet No. ?? for location. Weight of drains is included in the quantity for "Structural Steel". Weight is based on rolled tube.

Data for One Drain

Beam Size	BTC
Drain Weight (lbs.)	106
Drain Length (ft.)	5'-6 3/4"

Note to Designer: 6j1 Spacing Shown for TL-4 Barrier. See Design Manual Section 5.2 for TL-5 6j1 spacing.

Note to Detailer: "PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Superstructure Notes:

The bridge deck as shown includes 3/4" integral wearing surface. The pier and abutment diaphragm concrete is to be placed monolithically with the bridge deck.

Cost of all resilient joint filler material is to be included in the price bid for "Structural Concrete (Bridge)".

All beams are to be set vertical.

Forms for the deck and barrier rail are to be supported by the prestressed concrete beams.

Clear distance from face of concrete to near reinforcing bar shall be 2" unless otherwise noted or shown.

All deck and diaphragm reinforcing is to be wired in place and adequately supported before concrete is placed.

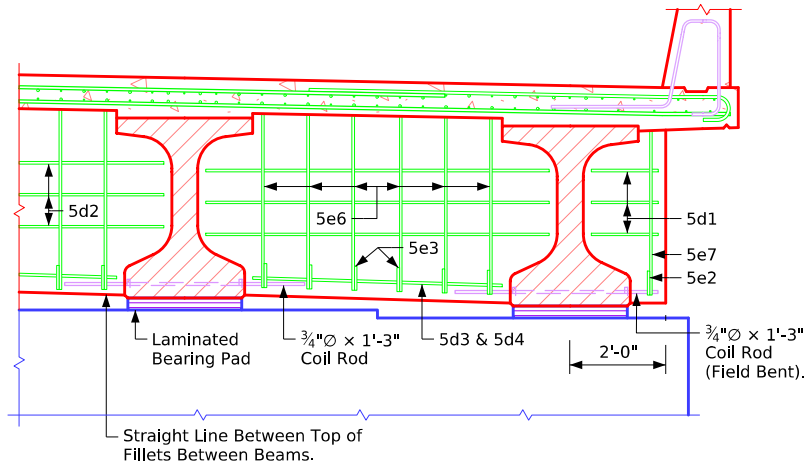
Top transverse reinforcing steel is to be parallel to and 2 3/4" clear below top of deck. Bottom transverse reinforcing steel is to be parallel to and 1 1/2" clear above bottom of the deck. Top and bottom reinforcing steel is to be supported by individual bar chairs spaced at not more than 3'-0" centers longitudinally and transversely, or by continuous rows of bar high chairs or deck bolsters spaced 4'-0" apart. I.M. 451.01 requirements shall apply for bar chairs, bar high chairs, and deck bolsters.

Transverse deck reinforcing may be spliced with one lap located as follows:

Top bar - Lap midway between beams (min. lap = 2'-10").

Bottom bars - Lap over beams (min. lap = 3'-7").

Payment for reinforcing bars shall be based on no splices, and no allowance shall be made for the additional length of bar required for the use of splices.



Part Section Near Expansion Pier

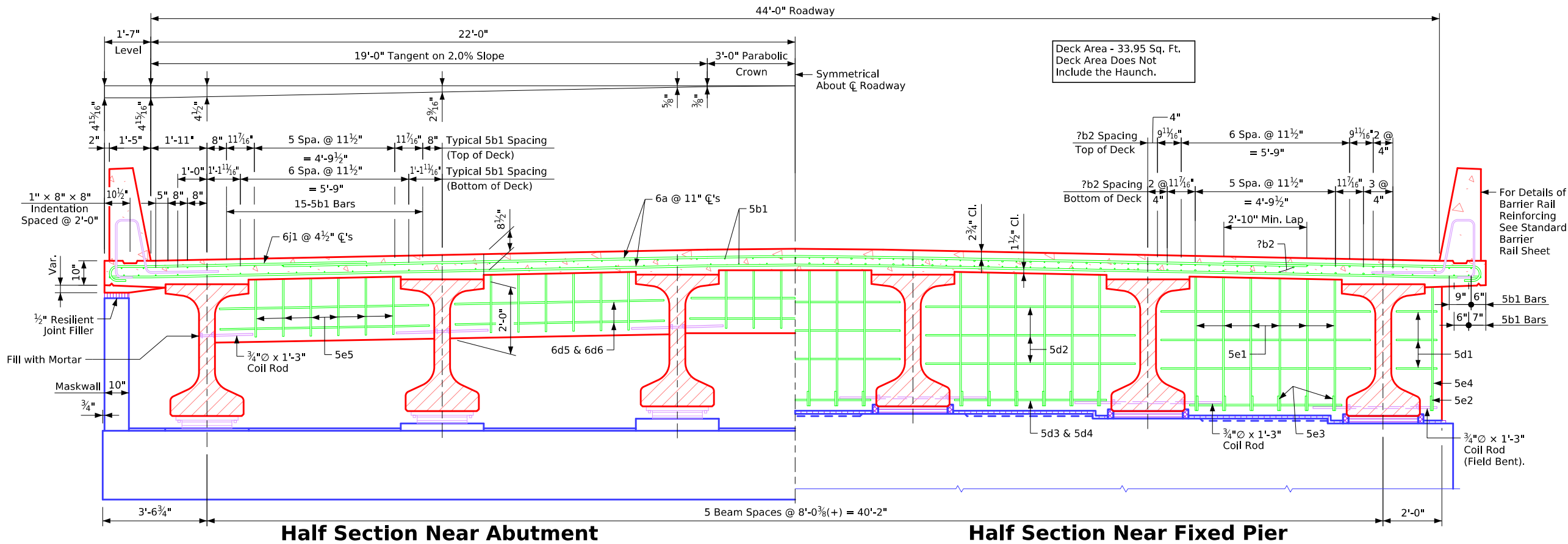
BTC 6 Beams - Stub Abut.

Correction 04-14: Added Referral Note to Summary Quantities Sheet for the Drain Weight. Note About Choice of Epoxy or Stainless Steel Deck to Barrier Rail Bars.
Revised 10-2026: In "Half Section Near Fixed Pier" and "Part Section Near Expansion Pier" details, changed Coil Rod to Field Bent (was labeled Bent).
BTSubBridges.dgn - 4560-BTD-6 - Issued 07-2008. This Sheet Re-Issued 11-2023. Sheet Format Update.

Table of Size of "b2" Bar	
Longest Adjacent Span	BTD Beam Bar Size
30'-0"	----
35'-0"	----
40'-0"	----
45'-0"	----
50'-0"	** 4
55'-0"	** 4
60'-0"	** 5
65'-0"	** 6
70'-0"	** 6
75'-0"	** 7
80'-0"	** 8
85'-0"	** 8
90'-0"	** 9
95'-0"	** 9
100'-0"	7
105'-0"	7
110'-0"	8
115'-0"	8
120'-0"	8
125'-0"	8
130'-0"	9
135'-0"	9
140'-0"	----
145'-0"	----
150'-0"	----
155'-0"	----

The midpoint of the "b2" bar is to be placed at the C of pier.

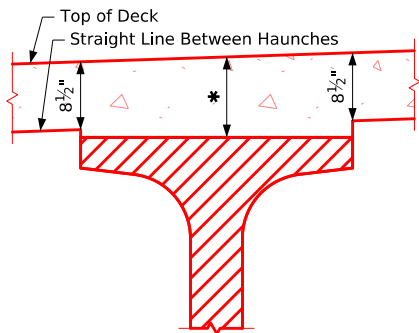
** Indicates "b2" bar placed in top deck only.



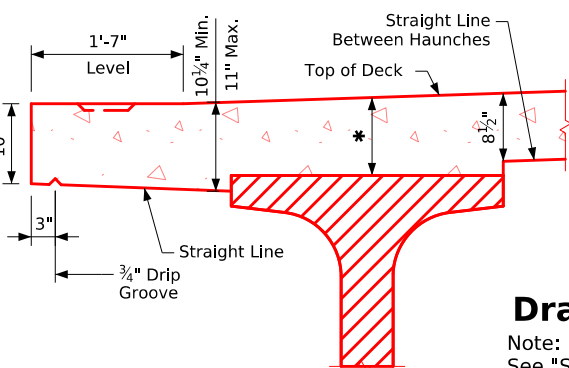
Half Section Near Abutment

Half Section Near Fixed Pier

Note: For Details of Intermediate Diaphragms See Design Sheet No. ??.



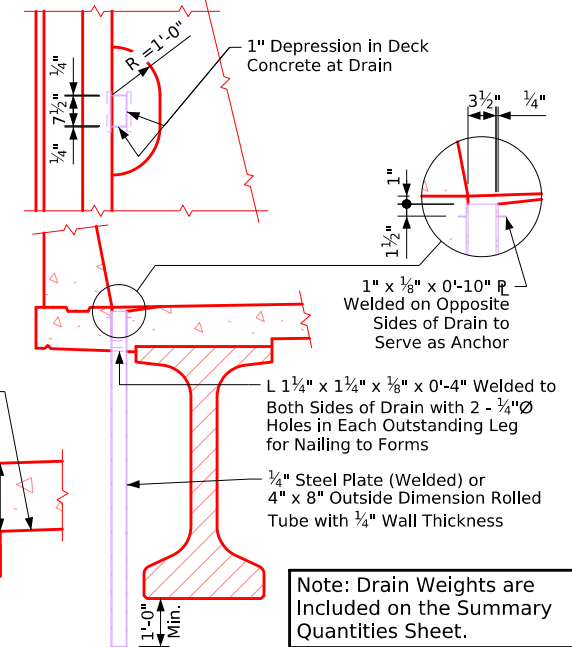
Interior Beams



Exterior Beams

Typical Deck and Haunch Detail

* For Deck Thickness Over Beams See "Haunch And Camber Details" on Design Sheet No. ??.



Drain Details

Note: Drains are to be galvanized. ?? Drains required. See "Situation Plan" on Design Sheet No. ?? for location. Weight of drains is included in the quantity for "Structural Steel". Weight is based on rolled tube.

Data for One Drain

Beam Size	BTD
Drain Weight (lbs.)	120
Drain Length (ft.)	6'-3 3/4"

Note to Designer: 6j1 Spacing Shown for TL-4 Barrier. See Design Manual Section 5.2 for TL-5 6j1 spacing.

Note to Detailer: "PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Superstructure Notes:

The bridge deck as shown includes 3/4" integral wearing surface. The pier and abutment diaphragm concrete is to be placed monolithically with the bridge deck.

Cost of all resilient joint filler material is to be included in the price bid for "Structural Concrete (Bridge)".

All beams are to be set vertical.

Forms for the deck and barrier rail are to be supported by the prestressed concrete beams.

Clear distance from face of concrete to near reinforcing bar shall be 2" unless otherwise noted or shown.

All deck and diaphragm reinforcing is to be wired in place and adequately supported before concrete is placed.

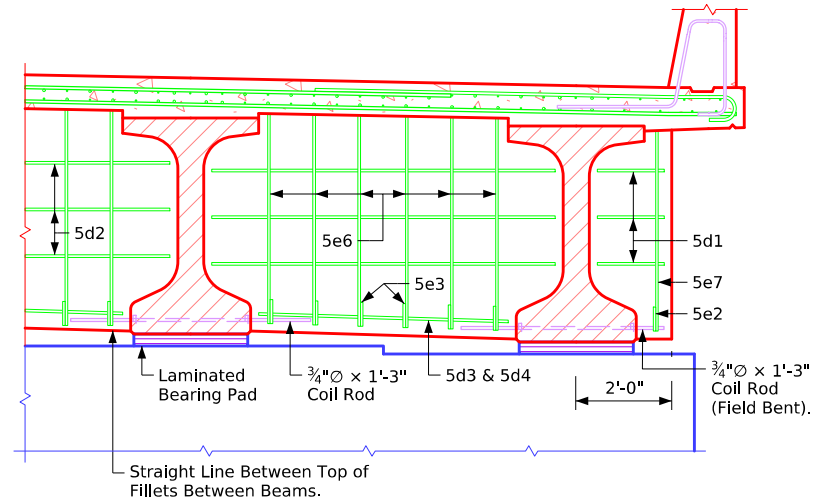
Top transverse reinforcing steel is to be parallel to and 2 3/4" clear below top of deck. Bottom transverse reinforcing steel is to be parallel to and 1 1/2" clear above bottom of the deck. Top and bottom reinforcing steel is to be supported by individual bar chairs spaced at not more than 3'-0" centers longitudinally and transversely, or by continuous rows of bar high chairs or deck bolsters spaced 4'-0" apart. I.M. 451.01 requirements shall apply for bar chairs, bar high chairs, and deck bolsters.

Transverse deck reinforcing may be spliced with one lap located as follows:

Top bar - Lap midway between beams (min. lap = 2'-10").

Bottom bars - Lap over beams (min. lap = 3'-7").

Payment for reinforcing bars shall be based on no splices, and no allowance shall be made for the additional length of bar required for the use of splices.



Part Section Near Expansion Pier

BTD 6 Beams - Stub Abut.

Longest Adjacent Span	BTE Beam Bar Size
30'-0"	-----
35'-0"	-----
40'-0"	-----
45'-0"	-----
50'-0"	-----
55'-0"	-----
60'-0"	** 4
65'-0"	** 5
70'-0"	** 6
75'-0"	** 6
80'-0"	** 7
85'-0"	** 7
90'-0"	** 8
95'-0"	** 8
100'-0"	** 9
105'-0"	** 9
110'-0"	7
115'-0"	7
120'-0"	7
125'-0"	8
130'-0"	8
135'-0"	8
140'-0"	9
145'-0"	9
150'-0"	9
155'-0"	9

** Indicates "b2" bar placed in top deck only.



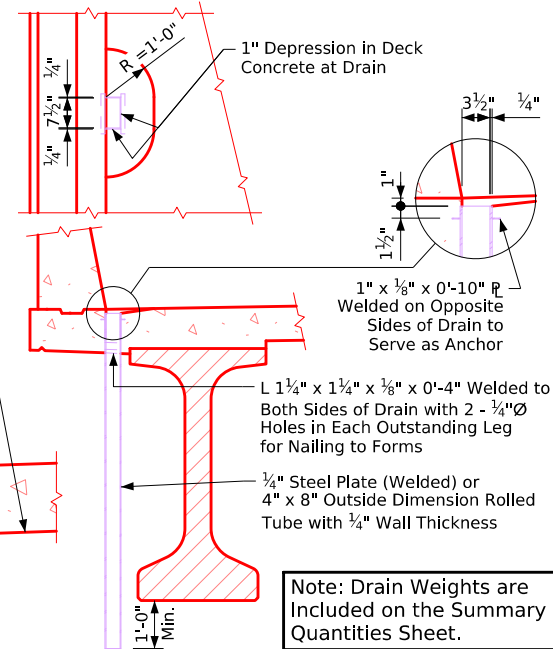
Note: For Details of Intermediate Diaphragms See Design Sheet No. ??.

Note to Detailer:
 "PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS"
 Level Should be On or Off Depending on Barrier
 Rail Steel Embedded in the Bridge Deck

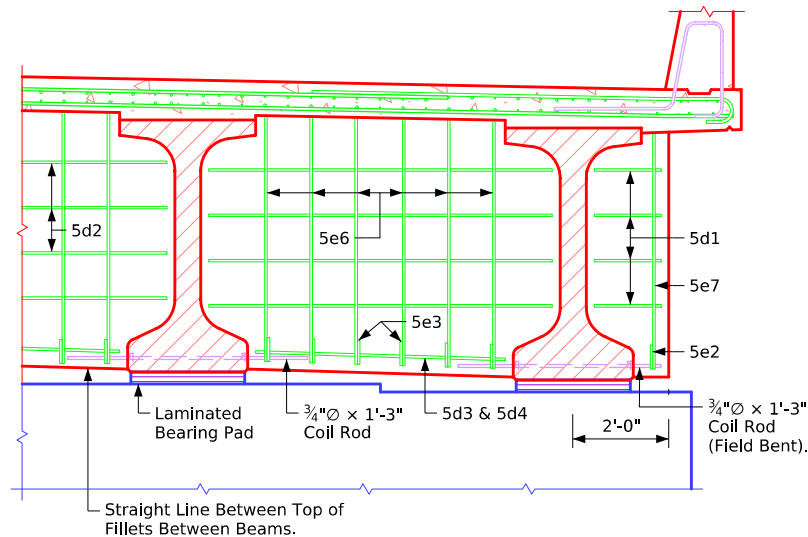


Note: Drains are to be galvanized. ?? Drains required. See "Situation Plan" on Design Sheet No. ?? for location. Weight of drains is included in the quantity for "Structural Steel". Weight is based on rolled tube.

Data for One Drain	
Beam Size	BTE
Drain Weight (lbs.)	136
Drain Length (ft.)	7'-0 $\frac{3}{4}$ "



Note: Drain Weights are Included on the Summary Quantities Sheet.

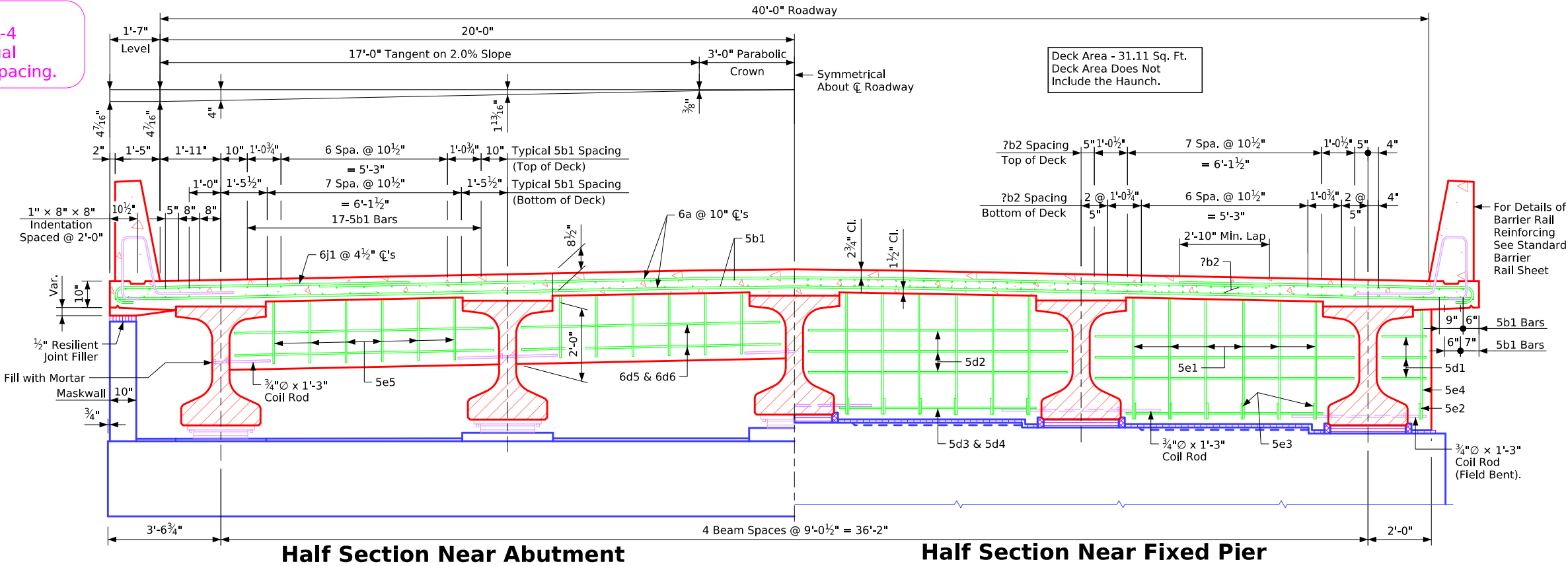


BTE 6 Beams - Stub Abut.

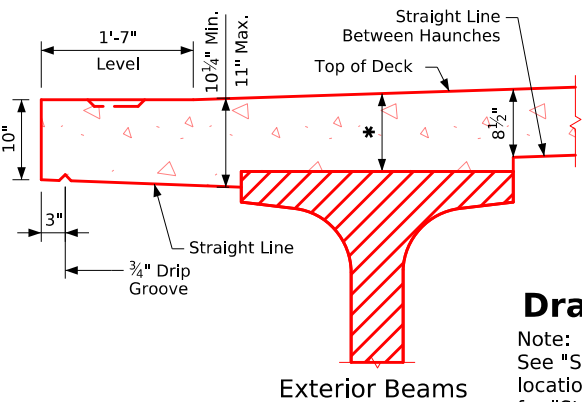
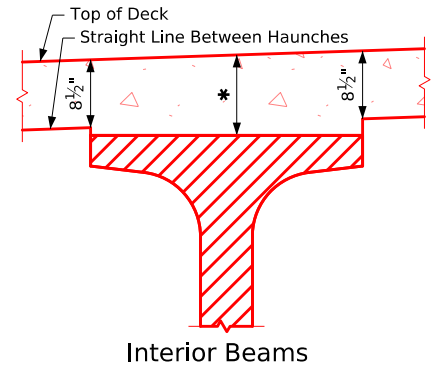
Correction 04-14: Added Referral Note to Summary Quantities Sheet for the Drain Weight. Note About Choice of Epoxy or Stainless Steel Deck to Barrier Rail Bars.
Revised 10-2026: In "Half Section Near Fixed Pier" and "Part Section Near Expansion Pier" details, changed Coil Rod to Field Bent (was labeled Bent).
BTSubBridges.dgn - 4561-BTC-5 - Issued 07-2008. This Sheet Re-Issued 11-2023. Sheet Format Update.

Table of Size of "b2" Bar	
Longest Adjacent Span	BTC Beam Bar Size
30'-0"	** 4
35'-0"	** 4
40'-0"	** 4
45'-0"	** 4
50'-0"	** 4
55'-0"	** 4
60'-0"	** 6
65'-0"	** 7
70'-0"	** 7
75'-0"	** 8
80'-0"	** 9
85'-0"	** 9
90'-0"	7
95'-0"	7
100'-0"	8
105'-0"	8
110'-0"	8
115'-0"	8
120'-0"	8
125'-0"	-----
130'-0"	-----
135'-0"	-----
140'-0"	-----
145'-0"	-----
150'-0"	-----
155'-0"	-----

Note to Designer:
6j1 Spacing Shown for TL-4 Barrier. See Design Manual Section 5.2 for TL-5 6j1 spacing.

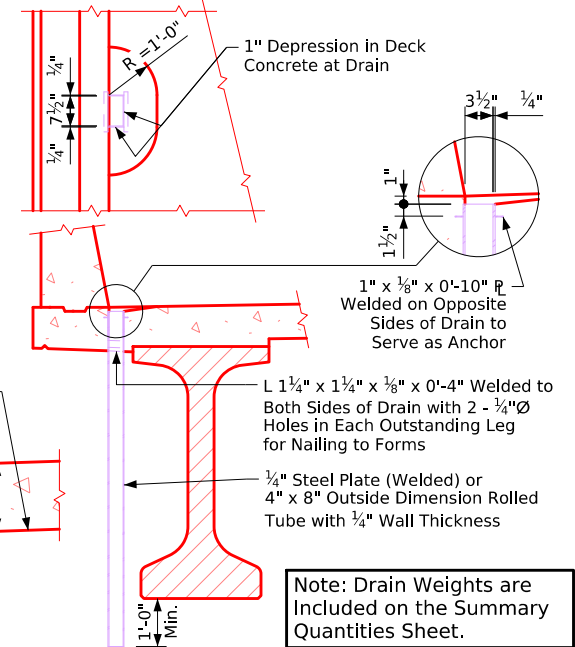


** Indicates "b2" bar placed in top deck only.



Typical Deck and Haunch Detail

* For Deck Thickness Over Beams See "Haunch And Camber Details" on Design Sheet No. ??.



Drain Details

Note: Drains are to be galvanized. ?? Drains required. See "Situation Plan" on Design Sheet No. ?? for location. Weight of drains is included in the quantity for "Structural Steel". Weight is based on rolled tube.

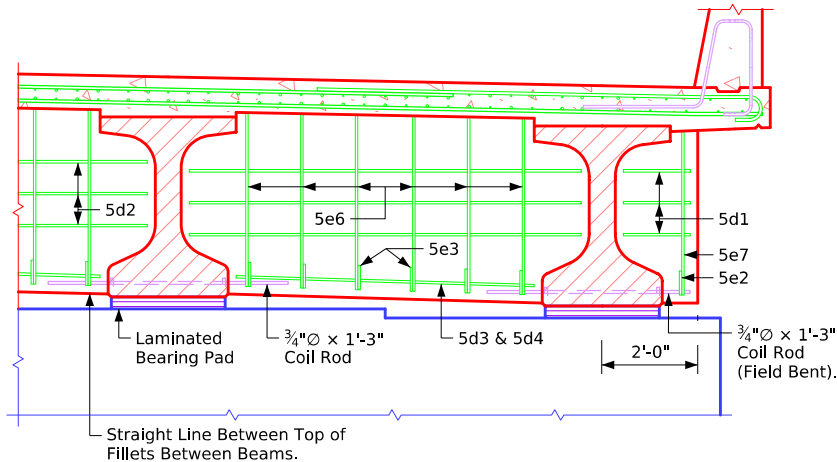
Data for One Drain

Beam Size	BTC
Drain Weight (lbs.)	106
Drain Length (ft.)	5'-6 3/4"

Note to Detailer:
"PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Superstructure Notes:

The bridge deck as shown includes 3/4" integral wearing surface. The pier and abutment diaphragm concrete is to be placed monolithically with the bridge deck.
Cost of all resilient joint filler material is to be included in the price bid for "Structural Concrete (Bridge)".
All beams are to be set vertical.
Forms for the deck and barrier rail are to be supported by the prestressed concrete beams.
Clear distance from face of concrete to near reinforcing bar shall be 2" unless otherwise noted or shown.
All deck and diaphragm reinforcing is to be wired in place and adequately supported before concrete is placed.
Top transverse reinforcing steel is to be parallel to and 2 3/4" clear below top of deck. Bottom transverse reinforcing steel is to be parallel to and 1 1/2" clear above bottom of the deck. Top and bottom reinforcing steel is to be supported by individual bar chairs spaced at not more than 3'-0" centers longitudinally and transversely, or by continuous rows of bar high chairs or deck bolsters spaced 4'-0" apart. I.M. 451.01 requirements shall apply for bar chairs, bar high chairs, and deck bolsters.
Transverse deck reinforcing may be spliced with one lap located as follows:
Top bar - Lap midway between beams (min. lap = 2'-10").
Bottom bars - Lap over beams (min. lap = 3'-7").
Payment for reinforcing bars shall be based on no splices, and no allowance shall be made for the additional length of bar required for the use of splices.



Part Section Near Expansion Pier

BTC 5 Beams - Stub Abut.

Correction 04-14: Added Referral Note to Summary Quantities Sheet for the Drain Weight. Note about Choice of Epoxy or Stainless Steel Deck to Barrier Rail Bars.
Revised 10-2026: In "Half Section Near Fixed Pier" and "Part Section Near Expansion Pier" details, changed Coil Rod to Field Bent (was labeled Bent).
BTSubBridges.dgn - 4561-BTC-6 - Issued 07-2008. This Sheet Re-Issued 11-2023. Sheet Format Update.

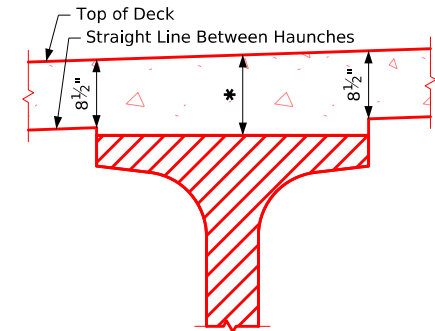
Table of Size
of "b2" Bar

Longest Adjacent Span	BTC Beam Bar Size
30'-0"	** 4
35'-0"	** 4
40'-0"	** 4
45'-0"	** 4
50'-0"	** 4
55'-0"	** 4
60'-0"	** 6
65'-0"	** 7
70'-0"	** 7
75'-0"	** 8
80'-0"	** 9
85'-0"	** 9
90'-0"	7
95'-0"	7
100'-0"	8
105'-0"	8
110'-0"	8
115'-0"	8
120'-0"	8
125'-0"	-----
130'-0"	-----
135'-0"	-----
140'-0"	-----
145'-0"	-----
150'-0"	-----
155'-0"	-----

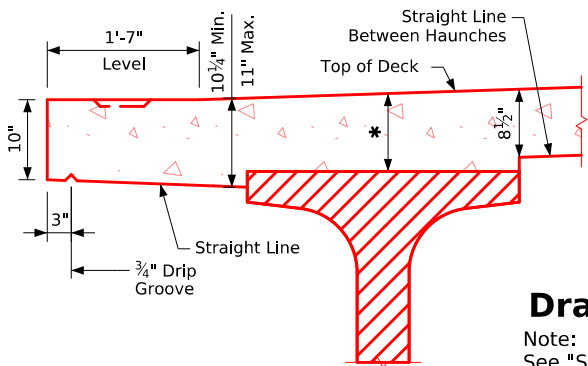
Note to Designer:
6j1 Spacing Shown for TL-4
Barrier. See Design Manual
Section 5.2 for TL-5 6j1 spacing.

The midpoint of the "b2" bar is to be
placed at the C of pier.

** Indicates "b2" bar placed in top deck only.



Interior Beams



Exterior Beams

Typical Deck and
Haunch Detail

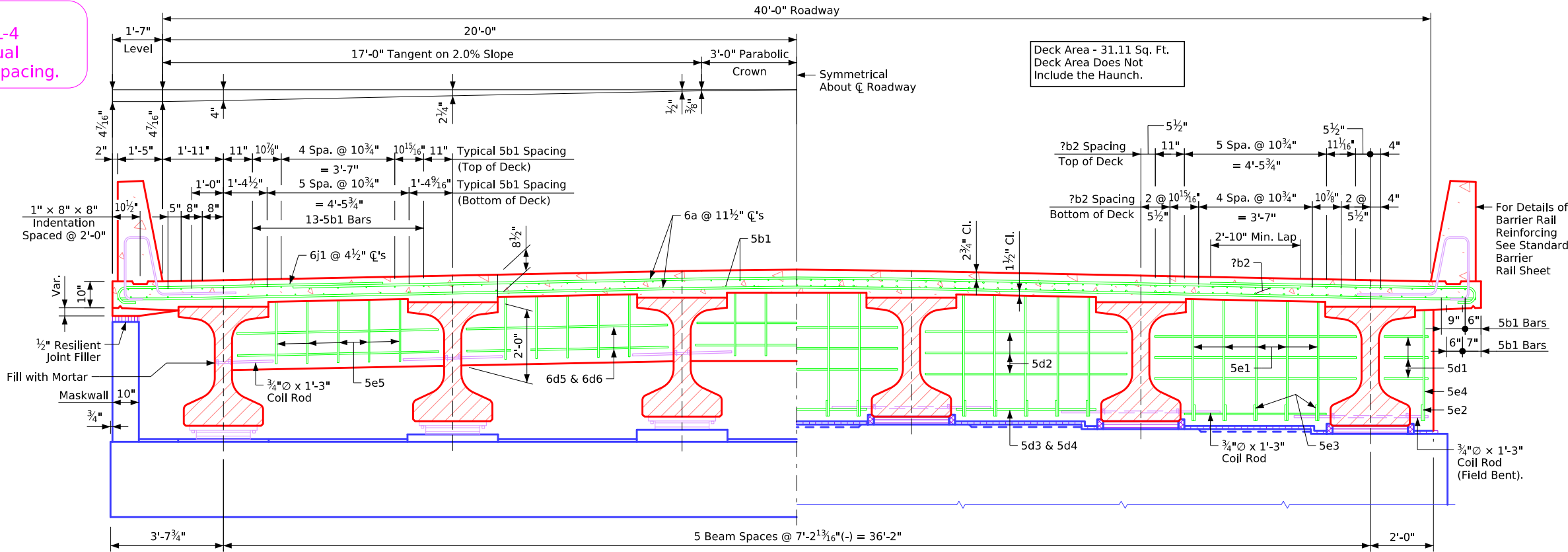
* For Deck Thickness Over Beams See
"Haunch And Camber Details" on
Design Sheet No. ??.

Drain Details

Note: Drains are to be galvanized. ?? Drains required.
See "Situation Plan" on Design Sheet No. ?? for
location. Weight of drains is included in the quantity
for "Structural Steel". Weight is based on rolled tube.

Data for One Drain

Beam Size	BTC
Drain Weight (lbs.)	106
Drain Length (ft.)	5'-6 3/4"



Half Section Near Abutment

Half Section Near Fixed Pier

Note: For Details of Intermediate Diaphragms See Design Sheet No. ??.

Note to Detailer:
"PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS"
Level Should be On or Off Depending on Barrier
Rail Steel Embedded in the Bridge Deck

Superstructure Notes:

The bridge deck as shown includes 3/4" integral wearing surface.
The pier and abutment diaphragm concrete is to be placed
monolithically with the bridge deck.

Cost of all resilient joint filler material is to be included in
the price bid for "Structural Concrete (Bridge)".

All beams are to be set vertical.

Forms for the deck and barrier rail are to be supported by the
prestressed concrete beams.

Clear distance from face of concrete to near reinforcing bar
shall be 2" unless otherwise noted or shown.

All deck and diaphragm reinforcing is to be wired in place and
adequately supported before concrete is placed.

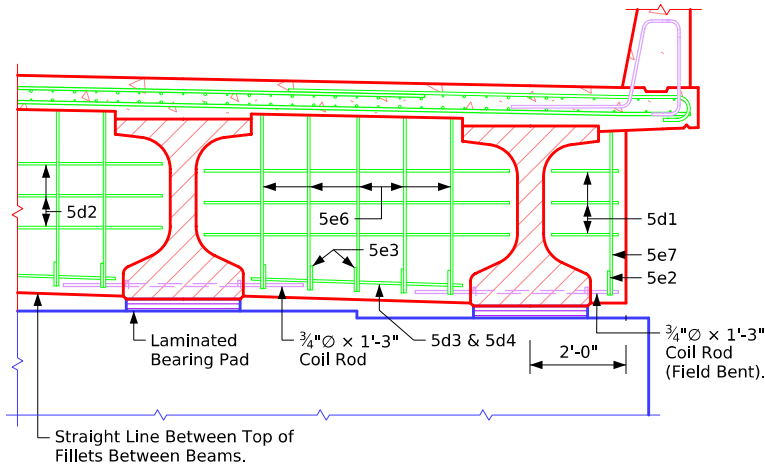
Top transverse reinforcing steel is to be parallel to and 2 3/4"
clear below top of deck. Bottom transverse reinforcing steel is
to be parallel to and 1 1/2" clear above bottom of the deck. Top and
bottom reinforcing steel is to be supported by individual bar
chairs spaced at not more than 3'-0" centers longitudinally and
transversely, or by continuous rows of bar high chairs or deck
bolsters spaced 4'-0" apart. I.M. 451.01 requirements shall apply for
bar chairs, bar high chairs, and deck bolsters.

Transverse deck reinforcing may be spliced with one lap
located as follows:

Top bar - Lap midway between beams (min. lap = 2'-10").

Bottom bars - Lap over beams (min. lap = 3'-7").

Payment for reinforcing bars shall be based on no splices, and
no allowance shall be made for the additional length of bar
required for the use of splices.



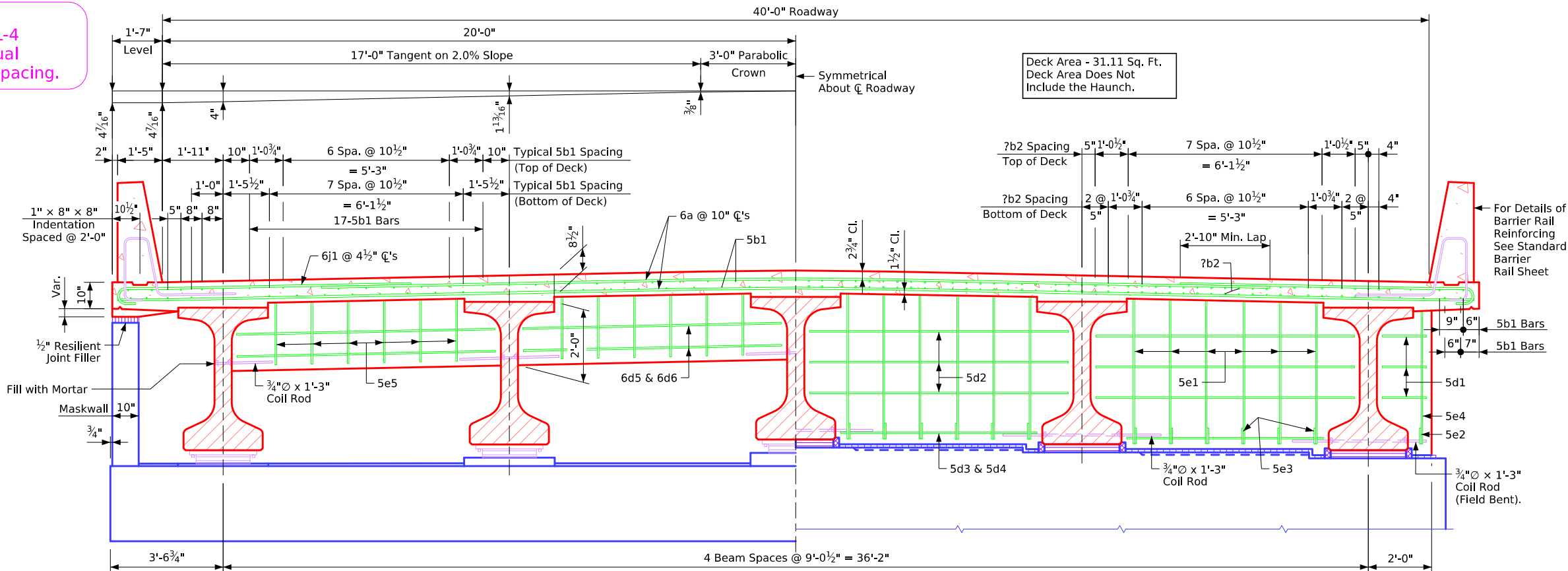
Part Section Near Expansion Pier

BTC 6 Beams - Stub Abut.

Correction 04-14: Added Referral Note to Summary Quantities Sheet for the drain weight. Note about choice of epoxy or stainless steel deck to Barrier Rail bars.
Revised 10-2026: In "Half Section Near Fixed Pier" and "Part Section Near Expansion Pier" details, changed Coil Rod to Field Bent (was labeled Bent).
BTSubBridges.dgn - 4561-BTD-5 - Issued 07-2008. This Sheet Re-Issued 11-2023. Sheet Format Update.

Table of Size of "b2" Bar	
Longest Adjacent Span	BTD Beam Bar Size
30'-0"	----
35'-0"	----
40'-0"	----
45'-0"	----
50'-0"	** 4
55'-0"	** 4
60'-0"	** 5
65'-0"	** 6
70'-0"	** 6
75'-0"	** 7
80'-0"	** 8
85'-0"	** 8
90'-0"	** 9
95'-0"	** 9
100'-0"	7
105'-0"	7
110'-0"	8
115'-0"	8
120'-0"	8
125'-0"	8
130'-0"	9
135'-0"	9
140'-0"	----
145'-0"	----
150'-0"	----
155'-0"	----

Note to Designer:
6j1 Spacing Shown for TL-4 Barrier. See Design Manual Section 5.2 for TL-5 6j1 spacing.



Half Section Near Abutment

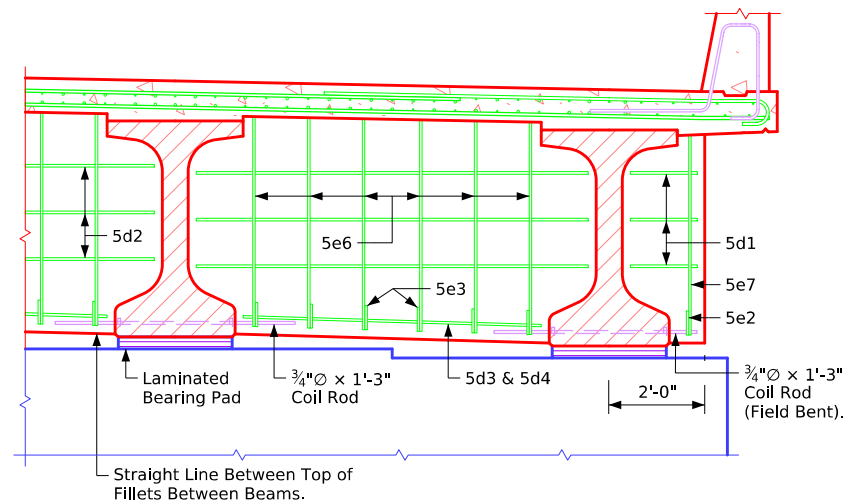
Half Section Near Fixed Pier

Note: For Details of Intermediate Diaphragms See Design Sheet No. ??.

Note to Detailer:
"PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

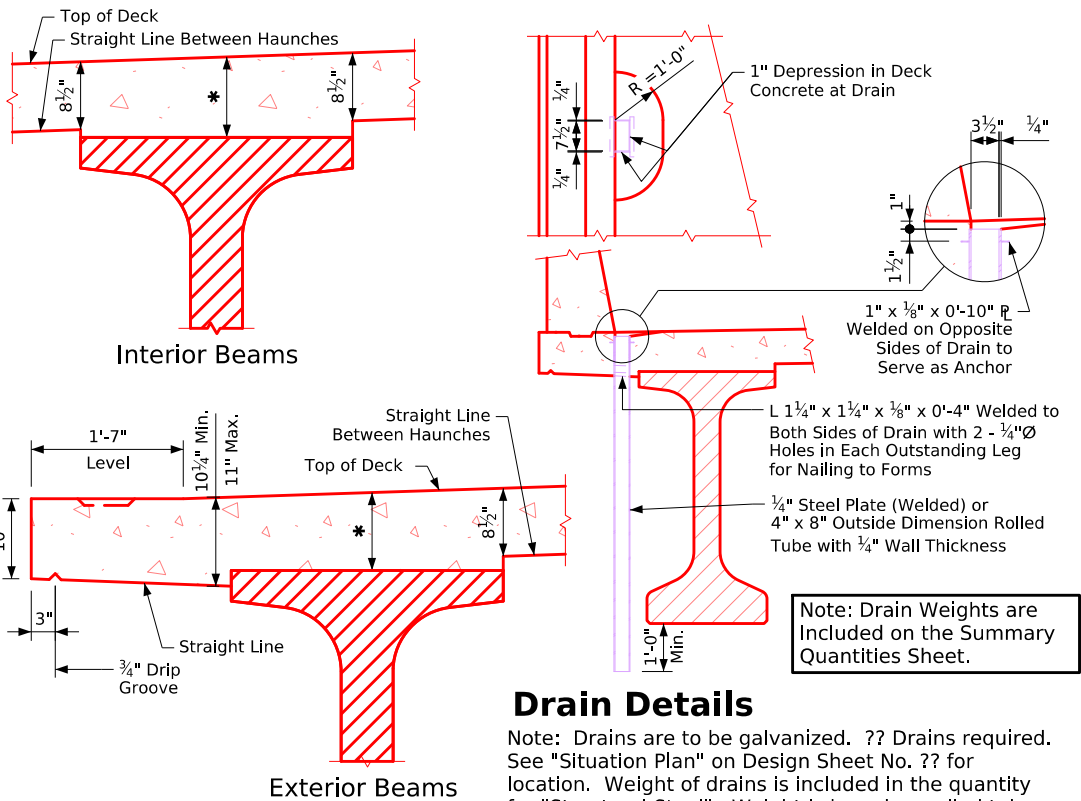
Superstructure Notes:

The bridge deck as shown includes 3/4" integral wearing surface. The pier and abutment diaphragm concrete is to be placed monolithically with the bridge deck.
Cost of all resilient joint filler material is to be included in the price bid for "Structural Concrete (Bridge)".
All beams are to be set vertical.
Forms for the deck and barrier rail are to be supported by the prestressed concrete beams.
Clear distance from face of concrete to near reinforcing bar shall be 2" unless otherwise noted or shown.
All deck and diaphragm reinforcing is to be wired in place and adequately supported before concrete is placed.
Top transverse reinforcing steel is to be parallel to and 2 3/4" clear below top of deck. Bottom transverse reinforcing steel is to be parallel to and 1 1/2" clear above bottom of the deck. Top and bottom reinforcing steel is to be supported by individual bar chairs spaced at not more than 3'-0" centers longitudinally and transversely, or by continuous rows of bar high chairs or deck bolsters spaced 4'-0" apart. I.M. 451.01 requirements shall apply for bar chairs, bar high chairs, and deck bolsters.
Transverse deck reinforcing may be spliced with one lap located as follows:
Top bar - Lap midway between beams (min. lap = 2'-10").
Bottom bars - Lap over beams (min. lap = 3'-7").
Payment for reinforcing bars shall be based on no splices, and no allowance shall be made for the additional length of bar required for the use of splices.



Part Section Near Expansion Pier

BTD 5 Beams - Stub Abut.



Drain Details

Note: Drains are to be galvanized. ?? Drains required. See "Situation Plan" on Design Sheet No. ?? for location. Weight of drains is included in the quantity for "Structural Steel". Weight is based on rolled tube.

Data for One Drain

Beam Size	BTD
Drain Weight (lbs.)	120
Drain Length (ft.)	6'-3 3/4"

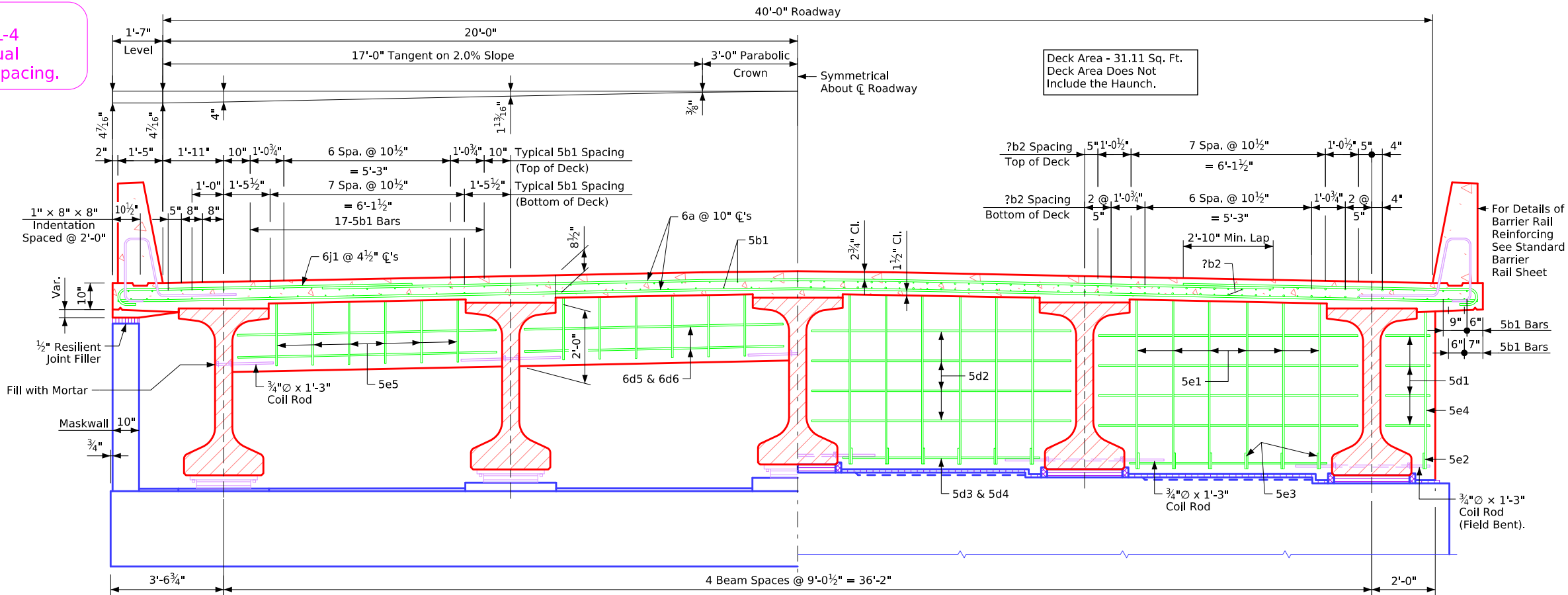
Typical Deck and Haunch Detail

* For Deck Thickness Over Beams See "Haunch And Camber Details" on Design Sheet No. ??.

Correction 04-14: Added Referral Note to Summary Quantities Sheet for the drain weight. Note about choice of epoxy or stainless steel deck to Barrier Rail bars.
Revised 10-2026: In "Half Section Near Fixed Pier" and "Part Section Near Expansion Pier" details, changed Coil Rod to Field Bent (was labeled Bent).
BTSubBridges.dgn - 4561-BTE-5 - Issued 07-2008. This Sheet Re-Issued 11-2023. Sheet Format Update.

Table of Size of "b2" Bar	
Longest Adjacent Span	BTE Beam Bar Size
30'-0"	----
35'-0"	----
40'-0"	----
45'-0"	----
50'-0"	----
55'-0"	----
60'-0"	** 4
65'-0"	** 5
70'-0"	** 6
75'-0"	** 6
80'-0"	** 7
85'-0"	** 7
90'-0"	** 8
95'-0"	** 8
100'-0"	** 9
105'-0"	** 9
110'-0"	7
115'-0"	7
120'-0"	7
125'-0"	8
130'-0"	8
135'-0"	8
140'-0"	9
145'-0"	9
150'-0"	9
155'-0"	9

Note to Designer:
6j1 Spacing Shown for TL-4 Barrier. See Design Manual Section 5.2 for TL-5 6j1 spacing.



Half Section Near Abutment

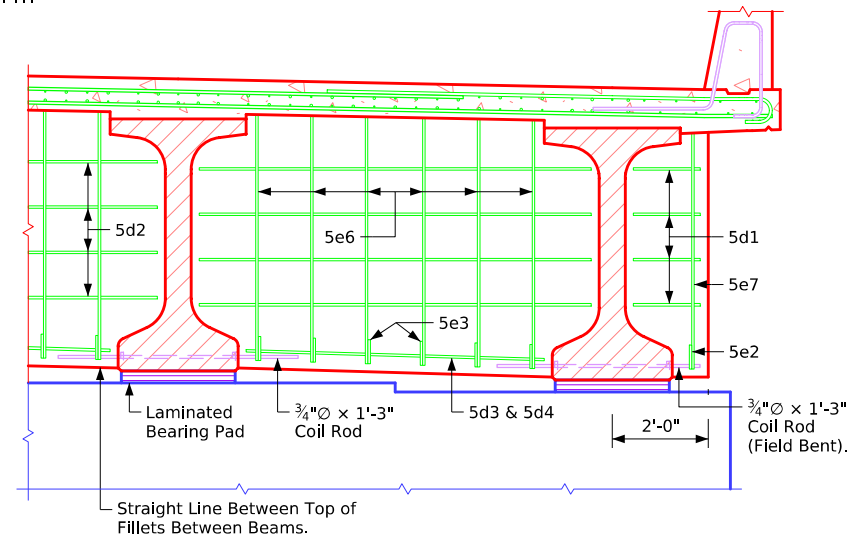
Half Section Near Fixed Pier

Note: For Details of Intermediate Diaphragms See Design Sheet No. ??.

Note to Detailer:
"PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Superstructure Notes:

The bridge deck as shown includes 3/4" integral wearing surface. The pier and abutment diaphragm concrete is to be placed monolithically with the bridge deck.
Cost of all resilient joint filler material is to be included in the price bid for "Structural Concrete (Bridge)".
All beams are to be set vertical.
Forms for the deck and barrier rail are to be supported by the prestressed concrete beams.
Clear distance from face of concrete to near reinforcing bar shall be 2" unless otherwise noted or shown.
All deck and diaphragm reinforcing is to be wired in place and adequately supported before concrete is placed.
Top transverse reinforcing steel is to be parallel to and 2 3/4" clear below top of deck. Bottom transverse reinforcing steel is to be parallel to and 1 1/2" clear above bottom of the deck. Top and bottom reinforcing steel is to be supported by individual bar chairs spaced at not more than 3'-0" centers longitudinally and transversely, or by continuous rows of bar high chairs or deck bolsters spaced 4'-0" apart. I.M. 451.01 requirements shall apply for bar chairs, bar high chairs, and deck bolsters.
Transverse deck reinforcing may be spliced with one lap located as follows:
Top bar - Lap midway between beams (min. lap = 2'-10").
Bottom bars - Lap over beams (min. lap = 3'-7").
Payment for reinforcing bars shall be based on no splices, and no allowance shall be made for the additional length of bar required for the use of splices.



Part Section Near Expansion Pier

BTE 5 Beams - Stub Abut.

Typical Deck and Haunch Detail

* For Deck Thickness Over Beams See "Haunch And Camber Details" on Design Sheet No. ??.

Drain Details

Note: Drains are to be galvanized. ?? Drains required. See "Situation Plan" on Design Sheet No. ?? for location. Weight of drains is included in the quantity for "Structural Steel". Weight is based on rolled tube.

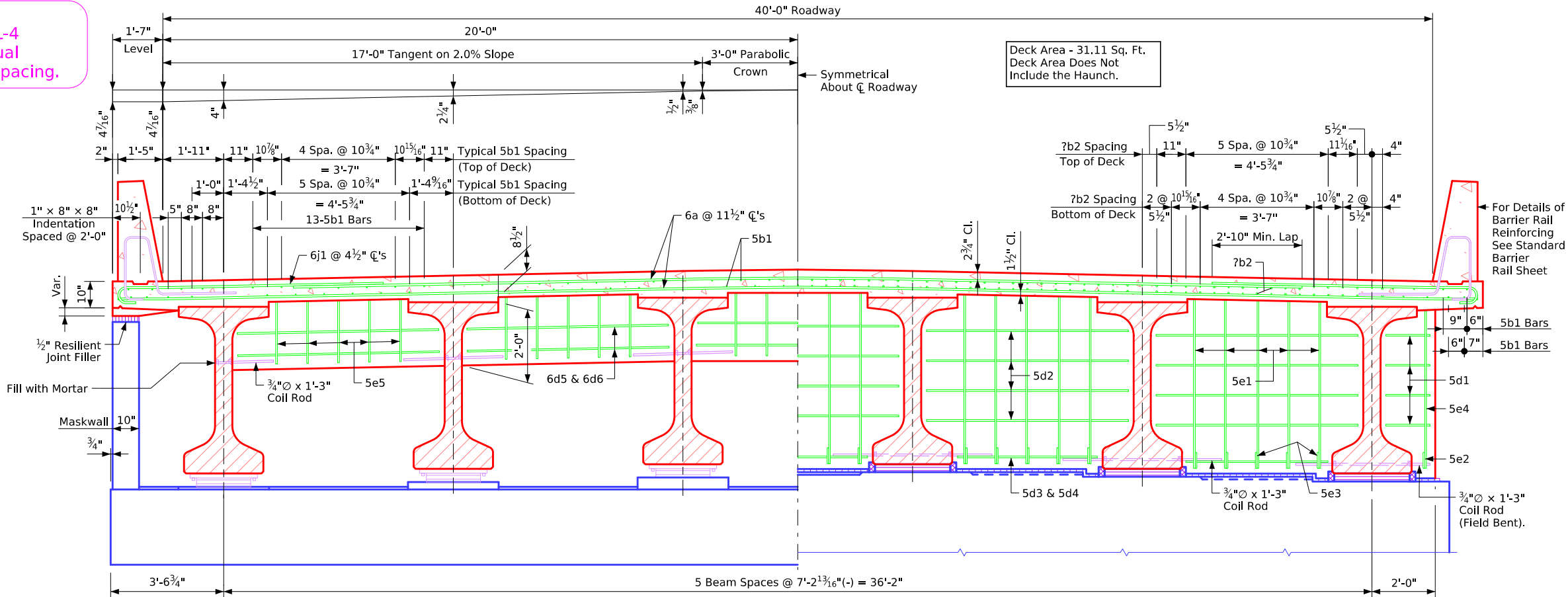
Data for One Drain

Beam Size	BTE
Drain Weight (lbs.)	136
Drain Length (ft.)	7'-0 3/4"

Correction 04-14: Added Referral Note to Summary Quantities Sheet for the drain weight. Note about choice of epoxy or stainless steel deck to Barrier Rail bars.
Revised 10-2026: In "Half Section Near Fixed Pier" and "Part Section Near Expansion Pier" details, changed Coil Rod to Field Bent (was labeled Bent).
BTSubBridges.dgn - 4561-BTE-6 - Issued 07-2008. This Sheet Re-Issued 11-2023. Sheet Format Update.

Table of Size of "b2" Bar	
Longest Adjacent Span	BTE Beam Bar Size
30'-0"	----
35'-0"	----
40'-0"	----
45'-0"	----
50'-0"	----
55'-0"	----
60'-0"	** 4
65'-0"	** 5
70'-0"	** 6
75'-0"	** 6
80'-0"	** 7
85'-0"	** 7
90'-0"	** 8
95'-0"	** 8
100'-0"	** 9
105'-0"	** 9
110'-0"	7
115'-0"	7
120'-0"	7
125'-0"	8
130'-0"	8
135'-0"	8
140'-0"	9
145'-0"	9
150'-0"	9
155'-0"	9

Note to Designer:
6j1 Spacing Shown for TL-4 Barrier. See Design Manual Section 5.2 for TL-5 6j1 spacing.



Half Section Near Abutment

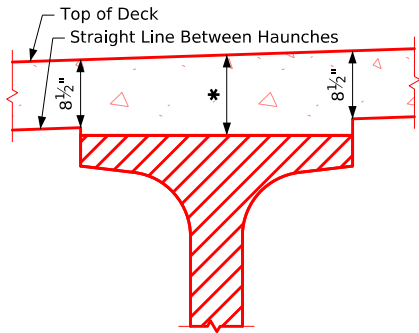
Half Section Near Fixed Pier

Note: For Details of Intermediate Diaphragms See Design Sheet No. ??.

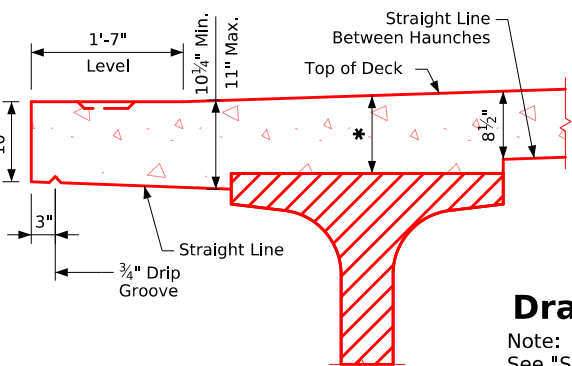
Note to Detailer:
"PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Superstructure Notes:

The bridge deck as shown includes 3/4" integral wearing surface. The pier and abutment diaphragm concrete is to be placed monolithically with the bridge deck.
Cost of all resilient joint filler material is to be included in the price bid for "Structural Concrete (Bridge)".
All beams are to be set vertical.
Forms for the deck and barrier rail are to be supported by the prestressed concrete beams.
Clear distance from face of concrete to near reinforcing bar shall be 2" unless otherwise noted or shown.
All deck and diaphragm reinforcing is to be wired in place and adequately supported before concrete is placed.
Top transverse reinforcing steel is to be parallel to and 2 3/4" clear below top of deck. Bottom transverse reinforcing steel is to be parallel to and 1 1/2" clear above bottom of the deck. Top and bottom reinforcing steel is to be supported by individual bar chairs spaced at not more than 3'-0" centers longitudinally and transversely, or by continuous rows of bar high chairs or deck bolsters spaced 4'-0" apart. I.M. 451.01 requirements shall apply for bar chairs, bar high chairs, and deck bolsters.
Transverse deck reinforcing may be spliced with one lap located as follows:
Top bar - Lap midway between beams (min. lap = 2'-10").
Bottom bars - Lap over beams (min. lap = 3'-7").
Payment for reinforcing bars shall be based on no splices, and no allowance shall be made for the additional length of bar required for the use of splices.



Interior Beams



Exterior Beams

Typical Deck and Haunch Detail

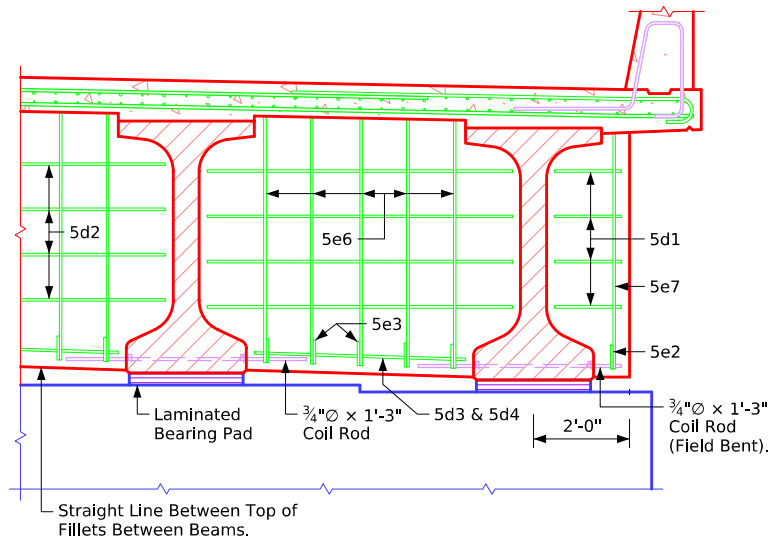
* For Deck Thickness Over Beams See "Haunch And Camber Details" on Design Sheet No. ??.

Drain Details

Note: Drains are to be galvanized. ?? Drains required. See "Situation Plan" on Design Sheet No. ?? for location. Weight of drains is included in the quantity for "Structural Steel". Weight is based on rolled tube.

Data for One Drain

Beam Size	BTE
Drain Weight (lbs.)	136
Drain Length (ft.)	7'-0 3/4"



Part Section Near Expansion Pier

BTE 6 Beams - Stub Abut.